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Climbing Vines.

II.

BY THE EDITOR.

WHEREVER we plant our arbors and rustic structures, there we find need of the help of some graceful climber, and though the list from which to choose is large enough, yet few feel the energy necessary to try them and produce the best effect. We have referred in a previous number to that most beautiful of all varieties, the *Scarlet Trumpet Creeper* (*Bignonia radicans*). If our readers have none of it growing, by all means procure it and train it up your porch, or on the side of the house. Its brilliant blossoms are always a gladsome sight.

The Virginia Creeper.

Next in beauty, both a living beauty and a beauty even in death, is the Virginia creeper, or American ivy (*Ampelopsis Hederacea*). The Virginia creeper, like the bignonia and ivy, throws out roots at the joints by which it fastens itself to anything it touches, but the vine is more hardy, more luxuriant and rapid in growth. In its native woods it will be seen climbing rocks and trees to a great height, while in the cultivated pleasure grounds of the gardener, it is made to cover walls of houses forty or more feet in height. The flowers can hardly be called of much value, being of a reddish green color, not showy, and succeeded by clusters of berries of a dark blue color. As the berries reach maturity the fruit-stalks and tendrils assume a rich crimson or red color. This vine will grow with very little attention or trouble, and it only asks to be planted to begin its years of grace. It is less planted than it should be, for the reason this plant is confounded by many persons with the poison ivy vine, which resembles it. The Virginia creeper is, however, perfectly harmless, and may be easily distinguished from the poison variety, from the fact that the latter contains but three leaflets to a leaf, while the former has five.

The greatest charm of the vine is, in its foliage, which, while green, is exceedingly beautiful. If planted in a cool, moist soil, to which it is best adapted, it will climb rapidly, sending off long branches, which sway gracefully in the breeze or attach themselves to adjacent points, and form rich and beautiful festoons of verdure. But the culmination of its beauty appears in Autumn, when the foliage assumes the most brilliant crimson hues, and it seems as if the live plant were about to meet its death in a blaze of glory. Even then the effect is best seen when running up the centre of a dark cedar, or climbing frequently on the edges of some compact evergreen. The October frosts change its color in the space of a single night, and the morning finds it shining like a line of crimson fire

over the dark foliage beyond or beneath. Emerson, one of our most enthusiastic admirers of forest verdure, says of it:

"The great variety of rich colors, shades of scarlet, crimson and purple, which the leaves and stems of this plant assume, and the situation in which we see it, climbing up the trunks and spreading along the branches of trees, covering walls and heaps of stones, forming natural festoons from tree to tree, or trained on the sides and along the piazzas of dwelling houses, make it one of the most conspicuous ornaments of the Autumnal months. Often, in October, it may be seen mingling its scarlet and orange leaves, thirty or forty feet from the ground, with the green leaves of the still unchanged tree on which it climbed."

Transplanting the Ivy.

Several years since, a Baltimore gardener pruning some locust trees rapidly being destroyed by the borer, determined to remove them, but there was one tree, standing on the south side of the house, affording a shade to several windows, that he felt could not be dispensed with without great inconvenience. Although the tree could not live long, yet by planting the Virginia creeper at its foot and allowing the vine to mantle the dead branches, it would afford some shade until another tree could be reared. The creeper was removed from another location, and replanted with great success. Its stem, nearly or quite an inch in diameter, was twined about the trunk and principal branches, to the height of perhaps twenty feet, and moderately pruned. The gardener says that the experiment was so entirely successful that, by being enveloped in the broad foliage of the vine, the tree was saved from the ravages of the insect to such an extent that it lost only a part of its top, and continued to live in fine health. But the creeper grew with the utmost vigor, notwithstanding it was planted four feet off the tree, so that now the vine overruns nearly the whole of the latter, hanging in masses and festoons from the higher branches, a perfect wilderness of foliage. Says he:

"I do not hesitate to say that it is the most beautiful object on the place, its young shoots, with their small and delicate light green leaves forming a remarkably fine contrast to the immense foliage of the darkest green, which clothes the old wood. In addition to this, the gorgeous appearance of the whole mass after the October frosts have changed the different shades of green to the most brilliant and varied tints of crimson, scarlet and yellow, is beyond my power of description."

Although I could wish to describe the attractions of the morning-glory, so common around all our country cottages, or the many climbing roses, every one a bright particular star of beauty, or dilate upon the exquisite perfume of the honeysuckle, still I reserve a choice position for modest worth in

The Chinese Wistaria.

The wistaria species, as a rule, is perfectly hardy, grows with great rapidity when well started in rich soil; but among the six or more varieties known and named, the Chinese (*Sinensis*) has received the verdict of popular preference, surpassing all others in the great development of its stems and the astonishing profusion of the flowers and the size of the azure-colored clusters. The foliage is noticeable for its delicate beauty, while the flowers hang in rich purple clusters like grapes. They appear about the last of May in the open ground, but if trained to the rafters of the green-house, they will be found in full blossom in March, while the rampant growth seems to occupy the entire space and fill it with thousands of the delicate purple clusters. There is often a second period of flowering in the late Summer months. But the blossoms can bear no comparison with those which appeared in the Spring. The flowers appear in racemes or clusters, each raceme six to twelve inches long, and containing fifty to one hundred or more blossoms. The united bouquet, as it really appears, is highly attractive, and emits a delicious perfume. It is as hardy as the American ivy, grows in almost any soil, will bear a temperature of ten or fifteen degrees below zero, and if planted in a deep, rich loam, will make shoots twenty to thirty feet long each season.

How to Propagate Climbing Vines.

The "Chinese" is easily propagated from cuttings or layers, or in a more simple way, by taking some of the long shoots of the present years' wood, burying a portion midway

between the root and end, under the surface, wounding or slitting the bark here and there before covering with soil. If done thus during the month of July, they will root finely by November. Amateurs after receiving plants from some of the nurseries, have difficulty in inducing an early and vigorous growth, the plants remaining dwarf and stunted, with little or no disposition to climb freely. This may arise from the possibility of propagation from a downward or impoverished branch, and the only course to be pursued, which in fact is best for all plants, good or bad, to head the vines to a single bud, as near the ground as possible, and make the ground rich, mellow and deep. This will give them a fair start, so that ever afterward they will maintain their natural luxuriance. If it is desirable to induce the "Chinese" to flower several times during the year, the following simple treatment can be observed:

"After the first flowering is over, strip off all the leaves, and cut off all young and superfluous branches which have been formed, to within a few inches of the stem, which causes it to throw out fresh leaves and to flower again. After this bloom is over, the same process will produce a third bloom, later in the season. The plant does bloom naturally twice and even thrice, but the flowers are so very weak, and so few, that it is hardly worth notice, whereas by the above simple process an abundant succession may be insured. This system cannot be applied to young plants, but only to those well established. By severe trimming the wistaria may be grown as a shrub or bush."

When age has given to the vine a character almost venerable because of its unusual luxuriance, far surpassing all other plants of a climbing nature, we find here and there isolated instances of specimens which have achieved a high celebrity. The finest specimens of the wistaria in Europe is trained upon the walls of the London Horticultural Society, where it occupies a space three hundred and seventy-five feet in length. Downing, who seems to have been a special champion in its behalf, describes it as the "loveliest of all vines," and speaks of one that covered the side of a small cottage completely.

Imagine a space of ten by twenty feet completely draped with wistaria shoots, on which hung, thick as in a flower pattern, at least five hundred clusters of the most delicate blossoms, of a tint between pearl and lilac, each bunch of bloom shaped like that of a locust tree, but eight inches to a foot long, and most gracefully pendent from branches just starting into tender green foliage. If you could see all this as we saw it, you could not fail to utter exclamations of delight.

The noblest specimen we can call to mind at the present time in this country, may be seen at the corner of Second avenue and Seventh street, this city. It is planted at the end of a large brick house, which forms the corner, but has grown with such amazing rapidity that it not only covers the front of the house to the roof, but an arbor over the steps, the entire side of the house on the cross street, and likewise the entire side of a house in the rear, an area of 10,000 square feet—a curiosity of unexampled merit. It is trained gracefully, and is preserved with the tenderest care by the owner, who appreciates its value; but when in bloom, it is such an object of splendor as to excite the wonder and admiration of the passer-by.

Flower Beds for The Central Park.

Hints for The Central Park Commissioners.

A FEW months ago *The Rural New Yorker*, in giving some illustrations of the styles of ribbon lines or massing of color in flower gardens, took occasion to remark on the absence of all such decoration in the grounds of the Central Park of New York, or the Prospect Park of Brooklyn. To those who have recently seen the display made by this style of decoration in the parks in the vicinity of Dublin, London, or Paris, these remarks would seem to be not uncalled for. That our Central Park is grand in conception and execution there can be no question, but there is a sameness in its beautiful green swards and well kept walks which could well afford to be relieved now and then by a blaze of color such as we see by the massing system in the English or French parks. A few thousand dollars, spent by the Commissioners for this purpose, would be gratefully appreciated by the thousands who would feast their eyes by such a display. Who will lead in this matter, New York or Brooklyn?

A. B.

Design for a Farm House.

FARM houses are better intended for *convenience* than show, hence they are so generally plain and unpretending without, while we can all testify to much cheerfulness and comfort within. Very few farmers have the means for adding architectural ornaments to their dwellings, and although we believe farm life would be far more agreeable and alluring, if there were thrown in a few more touches of rural taste and architecture, yet if a house is surrounded with an abundance of verdure, shady trees, flowering shrubs, a nice bit of a cottage flower garden, and here and there arbors, verandahs, adorned with climbing vines, it far more compensates for the absence of architectural beauty, while costing far less.

In the design here given, there is nothing showy, either in perspective or detail. It is a plain, substantial farm house, nearly square, with an L on one side, and from the tasteful touches of the artist, is intended to become a cozy comfortable *home*, rather than a gilded cottage.

The plan of rooms is as follows:

No. 1. Hall, 7 feet 8 inches by 19 feet.
" 2. Parlor, 15 feet by 16 feet.
" 3. Living room, 15 feet by 16 feet.
" 4. Kitchen, 15 feet by 20 feet.
" 5. Bed room, 15 feet square.
" 6. Back kitchen, 16 feet by 12 feet.
" 7. Pantry, 7 feet by 10 feet.
No. 8. Wood room, 14 feet by 15 feet.
" 9. Work shop.
" 10. Carriage shed.
" 11. Dairy, 7 feet by 14 feet.
" 12. Store room, 7 feet by 13 feet.
" 13. Back entry.
" 14. Sheltered porch.

The kitchens are amply provided with large closets, and every household convenience.

The second floor contains eight chambers, besides bathing room, dressing rooms and closets. The attics may be left unfinished.

The house is intended to be built of wood, and covered in the common manner with clapboards. The roof of the main house projects two feet and a half, and that of the L one foot and a half, the cornices are supported in brackets three inches thick. The windows and doors inside and outside, have plain architraves, five inches wide. Cost in the country, about $4,500, but where timber is high will run over that estimate.

Pencil Marks by the Way.

BY OCCIDENTALIS.

About the Ailanthus Tree.

I HAD often thought of the Ailanthus, as timber suitable for transplanting and growing upon the broad prairies of the West. It certainly possesses some of the qualities that will make it a very desirable tree for stocking the thousands of treeless farms to be met with in all portions of the Great West.

1. Its growth is very rapid. I know of none to excel it—not even the rank Cottonwood, or the silver-leaved Abele. I have known it at two years old to be as large as my wrist; and two of the three sprouts from a stump, at three years old, were large enough for grape stakes.

2. Though such a rapid grower, its wood is fine-grained and solid; and when seasoned, I believe will be full as lasting as the Mulberry. I have not known of any fair trial beneath the ground.

3. It is handsome and stately; in this respect not excelled by many of the deciduous trees.

It has one quality which I scarcely know how to class, whether favorable or unfavorable: It suckers badly, and is very hard to eradicate. You cannot kill it by cutting it down. Cut it off at the roots, and it will throw up a number of shoots around the original stem, which will make an amazing growth in one season. Cut and mangle its roots, and they will throw out a number of new trees.

I am confident that an acre of our rich prairie soils of Illinois or Iowa, planted with ailanthus, at distances of three to ten feet, would in four years yield three-fourths the

Design for a Farm House.

Ground Plan.

original number of grape stakes, and at six years three times the number—and so on continually increasing. But whether it could ever be extirminated, or kept within its original limits, I am unable to say.

The offensive odor of the only ailanthus with which I am acquainted, I confess, has been a strong argument against its introduction. Hence, I was much pleased and interested in reading the article in your October No., by General STROTHER, of Berkeley Springs, West Virginia, calling attention to its *congener*, grown in that vicinity. But, if, as he affirms, the Berkely ailanthus is only the *female* of the same tree, and not a variety, how is it that trees produced from the seeds should not be found to be promiscuously *male* and *female?* Is it possible that the seeds of this inodorous kind produce trees only of the same, while those of the "fœtid ailanthus,"—as he terms the male,—produce only the offensive sort? I should rather incline to the opinion that the two are distinct varieties. They are certainly distinct in several particulars, and especially in regard to the suckering propensity. At any rate, it is to be hoped that General STROTHER, or some one else, will give the public, through your journal, more light upon this Virginia ailanthus.

Are the Vexed Questions Settled?

MR. EDITOR:—Are any of the many questions that have been agitating the horticultural world, within the past year, been settled—beyond a peradventure?

For instance, 1. Is the "Mexican Everbearing" strawberry a new variety, or is it the old Alpine?

2. Is it, in either case, of any value as a garden fruit?

3. Is the Mammoth Cluster identical with the Miami raspberry?

4. Is the Early Richmond cherry more prolific on the Morello stock than on its own roots?

5. Do barn-yard fowls or birds eat the curculio?

6. Is the cause or cure of pear blight known?

These, and a hundred other questions that have been discussed during the last and former years, are still open questions,—many of them perhaps no nearer a solution than at first. I am at times almost ready to conclude that nothing is absolutely known—that no theory of growth—of culture—of disease—of remedy—or other horticultural phenomenon—but is liable to objection and doubt. And why is this so? I am led to conclude, that, in our investigations and researches, we are too apt to "jump at conclusions." We decide too hastily. We build our theories, and then seek for facts to sustain them. We do not sufficiently weigh and analyze, compare and combine results.

But there is another reason. Conditions of plant life, and of insect and animal life, differ. The same application that will produce fruitfulness, for instance, in one tree, will fail in another. The same remedy for a disease, successful in one case, will be unsuccessful in another. And why? Not only because of different surrounding conditions, of time and of circumstance,—but perhaps of inhering constitutional properties.

So it may be fair to conclude that many of these questions never will be settled; but that we must bring to bear upon each case, a sound judgment and a patient spirit.

Rawle's Janet.

There is a great deal of confusion among writers as to the true name and orthography of this much esteemed and valuable apple.

Many call it *Jeniton;* many others *Jeniting;* some use the G, and spell it *Geniton*, or *Geneting*. Others give the name of the originator, but render it *Raule*—Raule's Janet; while others again get the originator's name right—*Rawle*,—but misspell the lady's name for whom it was given—*Jannet*.

I notice that Hon. W. C. Flagg,—than whom there are few better authorities,—lately called the attention of the Alton Society to the subject, and referred to Downing as authority; calling attention to the fact that they had formerly voted to follow him as a guide. In that standard work, it is given as at the head of this article—RAWLE'S JANET.

A Robin's Nest in Fernery.

OUR illustration is taken from the pretty little fernery of a lady in England. A pair of robins in their flight discovered this sunny little retreat, and in it have built their nest. After a little time, they became so tame and used to visitors, as even whilst seated on their seat they would eat the food handed them by delighted friends.

Can we not, as we plan our beautiful little village gardens and snug summer retreats, provide some cosy corner for the dear little birds, "*messengers of heaven*," and by treating them kindly, add to the pleasure and happiness of ourselves and our families?

The Mammoth Cluster Raspberry.

BY A. M. PURDY.

IT is becoming too common with the Yankee nature of fruit growers to express an "opinion" on every new fruit, whether they have ever seen it or not. This has been done too much by many who simply know nothing about the fruit. For instance, the Mammoth Cluster has been pronounced a "humbug," "no better than the Miami," "no improvement on the wild black cap," and all such stuff, and in *every* case where we have questioned these parties or traced it up, we have found they had *never seen it in fruit*, but simply expressed their opinion from what So-and-so said.

We need not refer to the many reliable horticulturists who have *seen* this variety *in fruiting* to prove that it is far superior to any black cap grown, and in fact, we are yet to meet with a person who *has seen it in fruiting* but what pronounce it superior to any black raspberry they ever saw. Hence it is so strange to us that persons will express opinions that cannot be substantiated by the facts. For instance, I notice on page 43 of Feb. HORTICULTURIST that D. McLaury, of New Brunswick, N. J., says: "I doubt if the Mammoth Cluster, about which so much noise has been made the past year, is much 'if any superior to the Miami.'" Now I have cultivated the *Miami* for years and have fruited the Mammoth Cluster for three years, and can simply say that the last is as much superior to the first as is the *Miami* to the old seedy black cap of the woods, and in proof of my position please permit me to copy the following testimonial:

Messrs. E. W. Herendeen, T. C. Maxwell, E. A. Bronson, J. B. Jones, A. Merrill, and L. Herendeen, all well known nurserymen of Geneva, say:

"We found the Mammoth Cluster bearing immense crops of large, beautiful and excellent fruit, the finest display of black raspberries we have ever seen. We carefully examined it in comparison with the *Miami*—a sort claimed by some to be identical with it—and were *fully convinced that it was a distinct sort*. The points of difference are decidedly marked and evident to any one."

J. J. Thomas says: "Growing along side the Miama and other sorts, it was obviously distinct from all. In size it rather exceeded any other, many of the berries measuring three-fourths of an inch in diameter. The Miami measured not over five-eighths. The flavor of the Mammoth was generally regarded as superior to most others; while its more fleshy and less seedy character added to its value."

Charles Downing, after seeing it on our grounds, says: "It is *very much the largest and most productive* black cap I have ever seen, and coming as it does, after other black caps are done, it is a valuable addition to that class of raspberries."

Andrew S. Fuller, in a letter dated August 15th, '68, says: "You sent me a few plants of this variety, and they fruited finely this season. *It is the largest black raspberry that I have ever seen, and I have some twenty-five varieties on my grounds.*"

Let it be remembered that the two last gentlemen had beth grown the variety known as *Miami*, and readily recognized our plants of that sort.

D. D. T. Moore says in the *Rural New Yorker*, of Aug. 1st, 1868: "We are indebted to Messrs. Purdy and Johnston, of Palmyra, N. Y., for specimens of this black raspberry on the bush. Judging from the samples received we think the Mammoth Cluster the largest and most productive black raspberry we have ever seen, and of snperior flavor. We hope to visit the plantation soon and will then be able to speak advisedly as to both plant and fruit."

The next issue of the *Rural* reports as follows: "We received an invitation to visit on the 23d of July, 'Purdy & Johnston's Fruit Farm,' located at Palmyra, N. Y., to meet some distinguished Pomologists and inspect, among other things, a new and promising variety of the Black Cap Raspberry, named the 'Mammoth Cluster.' Business prevented our making the visit at that date, but receiving samples of the fruit later, its size and other good qualities induced us to take a look at the bushes whereon it grew, on July 28th. 'We only expect,' we said, at the entrance of the grounds, 'to see the bushes, at this late day, but we know the berry by sample, and the fruit stems will yet tell of its productiveness.' But they led the way to a plantation of rank growing, stocky bushes, where the pickers were gathering the berries for market, and showed us a patch which was then dark-

ened and bending from the profusion of 'Mammoth Clusters.' Near by were acres of the Doolittle, but the pickers had ceased work among them for more than a week, beginning next on the Mammoth Cluster. The Miami had also failed, though later than the Doolittle, but the Mammoth Cluster still yielded fruit, and there was a fair showing of green berries yet to ripen. And they have written us since, under date of July 29th, that 'we shall make a fair picking from it to-morrow, and probably next Monday, which will be just two weeks lacking one day from the last picking we make of the Doolittle." So much for its period of ripening. The canes are stockier, and more erect growth than those of the Doolittle or Miami, and the color of the foliage a shade darker. The difference in the varieties could be plainly seen from a spot which overlooked the entire plantation. The fruit stalks are long, and the fruit chiefly borne on the ends, in magnificent, heavy clusters. The berry is larger, and therefore jucier and more acceptable to the taste than the Doolittle. These qualities, and its prolific habit and late period of ripening, render it a valuable acquisition. It also has indications of the habit of throwing out fruit stalks to quite an extent for some time after the main season had passed."

We should think the above ought to suffice to show any person the superiority of the Mammoth Cluster and that when people are expressing their opinion as to its value, they should respect the statement drawn up from *actual* observation. We simply say it is *not* the *Miami*, and *is superior to it every way.*

The Gooseberries of the Future.

NO one can now believe that we are to receive these from England. So great are the climatic differences between that country and this that the vast improvements there secured in many fruits and flowers can be of but little avail to us. We do well, after a sufficient trial of them, to accept this fact and turn ourselves cheerfully to the development of our own native species.

From the single species of wild gooseberry growing throughout Northern Europe, the English have produced by cultivation so vast a number of kinds that the lists of the Lancashire nurserymen are said to include above 300 names. While the fruit of the wild sort weighs only about a quarter of an ounce, they have obtained kinds whose fruit weighs nearly two ounces.

What has been done in England, we may suppose can be repeated in America. But, instead of a single species, we have four that are indigenous to this country, and of so diverse habits as to be adapted to almost every condition of soil or method and purpose of culture. In the half-dozen improved seedlings which we now possess, we have already made a good beginning in the right way; and from judicious and well sustained crossing of these, and between these and the wild sorts, we may hope for the highest success in the end. I recommend crossing, from the belief that it is a fruitful cause of speedy variations. Thus far cultivators have mainly relied on sowing seeds raised without any special pains; and it is probable that the gains appearing at rare intervals are mainly due to crosses affected by insects. But, with careful fertilization of the flowers and due attention paid to securing the most perfect development of the seed afterward, by rigorous thinning and high cultivation, the probability of obtaining valuable new sorts will be much increased, while the labor, owing to fewer seeds being employed, will really be much lessened. Before leaving this subject, I would caution the operator against using pollen from foreign kinds, lest his seedlings inherit their disposition to mildew.

The most eminent physiologists concur in the belief that though hybrids themselves may be intermediate in character between their parent forms, and when there are several from a single cross there may be no wide difference among them; yet, when interbred with each other, they yield, during many generations, offspring astonishingly diversified. This is believed to be specially the case when natural species are crossed; for intercrossing of the offspring of long cultivated species or races sometimes favors uniformity, or on the other hand, offers opportunity for reversion to the first wild forms. So he who attempts the improvement of wild species may command the aid of two harmonious means of variability—that of repeated hybridizations, and of changed conditions of life by cultivation.

CHARLOTTE, VT. C. G. PRINGLE.

Ornamental Lawn Trees.

The Purple Beech—Fagus Sylvatica Purpurea.

THIS is one of our most strikingly beautifully lawn trees. In spring or early summer, when the leaves are still tender and but partially developed, the effect produced on them by the bright sunshine is really marvelous, and when the foliage is viewed under certain conditions is beautiful in the extreme. If the tree is brought in the range of vision between the spectator and the sun, it will have the appearance of being on fire, and lit up, as it were, with an intensity of color that any painter might love to dwell upon. The purple beech is a native of Germany, and all the varieties which now exist sprang from a single tree which was discovered by accident in a wood sometime during the last century. There are now many fine specimens of this beautiful tree to be found in many parts of the United States. Both in nurseries and in private grounds it is so much admired that wherever it is known in this country the demand has been generally greater than the supply. There is a variety of this which is also quite conspicuous in its foliage and is much sought after. It is called the copper beech, on account of the foliage being of a deep coppery hue, that continues to grow darker as the season advances, until it becomes almost black. It has always been my aim to introduce the purple beech and its varieties into both public and private grounds as the opportunity presented itself and the trees could be obtained, as objects worthy of a prominent place on the lawn; as it is suited to almost any kind of soil that is dry, but grows with most vigor on a clay loam.

The Ash Leaved Maple—Negundo Fraxinifolium,

Is a very handsome medium sized tree. It should be planted singly on the lawn and allowed sufficient room for a free and full development of all its parts. When thus treated it forms a wide-spreading head, and as the branches spring from near the ground, they will continue to spread over the surface for a considerable distance, until the tree arrives at maturity. It graws rapidly, and with its light green pinnated foliage, that sways with the slightest breeze that is wafted to its surface, it becomes an object of great beauty, and presents a striking contrast to the sombre hue of the Norway spruces and other evergreens that have obtained such prominence of late in most grounds. The young shoots of the Negundo, which are of a beautiful green, also presents a marked contrast to the other part of the tree, the branches and trunk of which are of a dark gray when young, but as the tree attains age, are merged into a brown. It is found growing on the Alleghany mountains, and it succeeds well in all the Northern and Middle States. It will grow in nearly every variety of soil, and is the kind of tree that is adapted to almost any situation.

ROCHESTER, N. Y. WILLIAM WEBSTER.

The Weeping Linden as an Ornamental Tree.

IN our American climate the Linden tree can hardly be called a success for ornamental planting. Its susceptibility to the attack of insects, and its liability to sudden disease, affecting the leaves and general appearance, transform it in a few days from a beautiful lawn and shade tree, into a mess of dry rustling leaves and stems, repulsive and unpleasant.

In many localities, however, such as private lawns, where the soil is cool, and yet well drained, with an abundance of other lawn trees in the vicinity and where there is a partial shade, we have seen Linden trees flourish admirably, untouched with insects or disease, and developing rapidly into a noble vigorous form, and retaining their large luxuriant foliage, green and glossy, until the fall of the leaf in autumn.

But all ornamental planters will do well, notwithstanding these risks, to make room for that most beautiful of all trees of its class, the *White Leaved Weeping Linden* (*Tilia alba pendula*).

It grows very rapidly, but does not exhibit, while young, very marked characteristics of a drooping habit; like the Weeping Birch and others, this peculiarity seems to increase with age. The tree has large broad foliage, deep green surface, nearly white beneath, with slender drooping shoots, which, with the rustling of a gentle wind, give a swaying motion at once graceful and beautiful. The tree grows to large size, 30 feet or more in height, has a fine symmetrical head of oval form, and if successfully grown, it becomes one of the finest ornaments of the landscape.

The Weeping Linden.

Growing Currants.

BY P. T. QUINN, IN "N. Y. TRIBUNE."

The Currant.

AMONG the list known as "small fruits," which have been cultivated for market with a view to profit, the currant has not, until quite recently, received the attention it well deserved. For a dozen years past, the popularity of the currant, as a table and dessert fruit, has steadily increased, and it is destined to become a general favorite with consumers. The subacid flavor of the cultivated kinds is agreeable to most persons, and considered by all as a healthy sauce to any feast, especially in midsummer.

To the practical fruit-grower, the currant possesses special characteristics, which are worthy of thoughtful consideration. Take, for instance, the strawberry, and when ripe, two days' rain often spoils one-third of the crop, and of course lessens the profit to that extent. With the currant the case is different. The fruit has a season of six or eight weeks, and even when fully ripe, two or three days rain does not injure the fruit—the storm simply stops the "pickers" while the rain is falling. During the season, if the price of currants fall below a certain figure the grower can turn his crop of fruit into jelly, which is a merchantable article, kept on sale at the present time by every first-class grocer.

Uses.—When green, the currant is made use of for pies and tarts. When the fruit is ripe, the bulk of the crop is sold to manufacturers of wine and jelly. The demand for table use has increased rapidly within the last four or five years, and this demand will be more each succeeding year. I know of many instances where families that six years ago hardly knew currants, that for the past two seasons have had them on their tables three times a day as long as the fruit lasted.

Propagation.—There are none of the small fruits more easily propagated than the currant. In the Northern and Middle States the currant ripens its wood in the latter part of August. When the wood is ripe, the surplus may be cut from the parent bush, and made into cuttings about six inches long, cut square on the lower end, and obliquely on top. These cuttings may be planted at once, in well-prepared ground, in a narrow trench five inches deep, and as long as required. The cuttings are placed in an upright position, two or three inches apart, in the trench. In filling in the trench, the earth should be pressed very firmly around the lower end of the cutting. This can be done with a wooden pounder, or by stamping the earth with the feet. It is important to do this in planting all kinds of cuttings, as well as the currant. When the loose earth that was taken from the trench is replaced and the surface leveled, two eyes of each cutting should be above the surface.

When the cuttings are made and planted in September, young roots are pushed out. Soon after planting, and before cold weather sets in, the cuttings are well rooted. At one year from the time of planting the young plants will be as strong as the year-old plants, when the cuttings are set out in the spring.

Culture.—The currant will grow in any soil that is properly fertilized, but will do best, making more wood and producing larger fruit, on a well-prepared clay soil. It is a rank feeder, and will produce beautiful crops annually, when the soil is kept rich.

When the ground is prepared, the rows may be marked out four feet apart, and the plants set in the row three feet. This will give ample room for cultivating, gathering the fruit, etc. Like the pear, the currant is social in its habits, and will do better with close planting and careful pruning. The main object in pruning the currant bush is to keep the surplus young and old wood thinned out and shortened in, so that the bush will be open and spreading. If the young wood is permitted to grow up in the centre of the bush, the fruit on the inner branches will be small and inferior.

A neighbor practices an excellent method of pruning on his bearing bushes. Instead of waiting until the end of the growing season, when the wood is ripe, he removes the superfluous young shoots in the early part of June, nipping them off with the thumb and finger. By this simple and effective method the labor and expense of pruning is reduced, and the yield of fruit is very much larger than when treated in the ordinary way. To insure paying crops of fruit it is quite as important to give the bearing currant bush an annual pruning as it is in the grape vine, although the currant will stand the "rough and no-treatment" system better than the grape. In most cases the grape vine will receive some

attention during the year, in the way of manure, digging around the roots, &c., &c.; but I have known many instances when currant bushes were allowed to stand in a neglected part of the garden for five or ten years without manure or cultivation, and still bear some fruit every year.

Varieties.—For many years the general favorite, the Red Dutch, was the only red currant cultivated to any considerable extent in this country, and it was principally grown in gardens for home consumption. The introduction of the Cherry and La Versaillaise at a later period gave an impetus to the culture of the currant on a large scale for market. The large size of berry of both of these sorts attracted the attention of fruit-growers, and, as a matter of course, they were propagated and planted extensively for market. For a number of years there was little or no demand for plants of the Red Dutch. Every one who planted wanted the large kinds. However, when the excitement subsided, and growers compared notes, under the same treatment, the Red Dutch was found nearly if not quite as profitable as either the cherry or La Versaillaise. There is very little difference, if any, between these two last named varieties, either in growth, size of berry, or length of bunch. The quality of the La Versaillaise is bitter, and the bunch more shouldered than the Cherry; but when the two kinds are placed alongside of each other on separate plates, good judges of fruit are puzzled to decide the difference. There have been a number of new varieties introduced within a few years, but their culture have been very limited. Of white currants, the White Grape is the most popular with growers.

Profit from the Currant.

During the years 1855 and 1856, we had on our farm a few hundred bearing currant bushes, and commenced sending some of the fruit to the Newark market. The demand for currants at that time was very light, and our commission men were constantly complaining that they had to "work them off" the best way they could. However, even with this discouraging state of affairs, we kept planting out more bushes, and although the demand was slow, there was a decided improvement each succeeding year, which gave us hope, that sooner or later, the currant would become a favorite.

In the same market, that in 1856, we experienced some difficulty in selling a dozen twenty-quart baskets of currants a week, at prices ranging from 75 cents to $1,25 per basket; in 1867 and 1868, we were selling from twenty-five to forty baskets per day, with a brisk market, and orders frequently one week ahead. The prices kept pace with the demand.

We found from experience that the fruit carried better, and brought higher prices in square packages, and so we changed the size from 20 to 12 quart, or "pony" baskets. The fruit is packed by German women and boys, at fixed rates for market, according to the crop. These rates are from 18 to 24 cents per basket. A smart boy will make $1.50 per day at these prices, working only nine hours. We prefer employing the same "pickers" from year to year, and can afford to pay them more than "new hands." To command the highest market rates it is essential that the fruit be not bruised in picking, and persons not accustomed to the work, are likely to do it, unless they are constantly watched and instructed the first season.

The subjoined statement from my neighbor, Wm. H. Goldsmith, will give an idea how much fruit currants will produce to the acre. Mr. Goldsmith has been engaged for many years in growing fruit for market, and is a careful and intelligent cultivator.

The amount of land occupied is 1800 square yards (or three-eighths of an acre). There are 16 rows of currants, 300 feet long, and the sales for the past four years were as follows:

1866	$209 89	1868, 2,160 lbs	$231 63
1867, 4,080 lbs	293 49	1869, 2,750 lbs	287 12

The currants were planted in 1860 and 1861 on good ground and cultivated three years, then mulched with salt hay, and in the spring of 1866, mulched with coarse manure, which had a very marked effect, and gave a very heavy crop of fruit, but I think injured the bushes for the succeeding crop; but the light yield of the two past seasons has allowed the formation of more new wood, and they look better at present than for the two previous seasons. The ground is hoed late in the fall and mulched in spring after pruning the new wood back two-thirds, and cutting out the old limbs that show signs of failing, which are

renewed by shoots from the base, two or three being left in June for that purpose, and the balance taken off at that time when about eight or ten inches long. The variety cultivated is the Red Dutch, excepting about a dozen bushes of La Versallaise, said dozen not having produced the fourth part as much fruit as the adjoining dozen of Red Dutch.

The greater part of the crop in 1867, was sold on contract to a pie baker in New York, at six cents per pound; and the last season the most of them were sold in Newark at about nine cents per pound, some last picked bringing fifteen cents at wholesale readily for Red Dutch in New York.

Taking the four years' results, the crop averaged $252.53 each year, from three-eighths of an acre of ground, or at the rate of $673.20 per acre. Now deducting, say one cent per pound for picking the fruit, and $50 per acre for manuring and labor, there would still be left a handsome margin for profit. So far the currant in New Jersey has been comparatively free from the ravages of insects, enemies which have in many sections rendered its culture, with any degree of success, an almost hopeless task.

Notes on New Jersey.

THAT portion of New Jersey immediately surrounding the city of Burlington, has long been famous for its crops of truck, and of later years for its small fruits. The soil is a sandy loam, sometimes very light, mostly underlaid with clay, and easily worked with one horse. The lighter land responds with astonishing quickness to the application of manures. But little broadcast manuring is done. The truck crops are manured in the rows when planted. When two to three of these crops are grown on the same ground in one season, every one is manured. A three year course of this kind becomes in reality a broadcast dressing. No one thinks of farming here without plenty of manure. Vast quantities are brought up from Philadelphia, and from numerous landings on the Delaware, are distributed for miles away from the river. The supply of this manure is inexhaustible. The collecting and storing of it for sale to the farmers, is a great business in the city. The war sent up the price beyond what we considered its value, but it is now even lower than old figures, and we shall consume as freely as ever.

The year 1869 was memorably bountiful. Almost every thing planted bore a full crop, and generally low prices prevailed. Asparagus, which is a great crop here, paid probably better than ever. The yield was large, the price high, and the canning establishments here, three in number, kept it up to the very last. Some 30,000 bunches were canned in this city. This process is rapidly extending. It brings out this popular esculent, in midwinter, as tender and fragrant as when cut in the open ground, and there are always wealthy consumers ready for it, no matter what the price. But the planting of new beds does not keep pace with the increasing demand, hence the price will certainly be maintained. An acre of good asparagus will yield a clear profit of $200 yearly. Even more than this has been realized. But with ordinary good care, it may be set down as one of the best modes for investing money. One has to wait two to three years before gathering his first crop. This discourages men from planting; but they continue to plant peaches and grapes, though they also withhold their first fruits for as long a period. All our very lightest lands are great producers of asparagus. A dozen acres thus planted will make a family comfortable, as the returns are sure.

It was generally supposed here that grape growing would not pay. But though every garden in and near this city contains vines which never fail to bear, yet no one embarked in the field culture of the vine. Of later years, however, numerous small vineyards of Concord have been planted. Every one of them has fully succeeded. The owners have gathered large crops, and sold them last year at paying prices. The soil, whether light or heavy, has been thus shown to be congenial to the Concord. At least ten thousand Concords will be planted in this vicinity the present season. So far, all our vines are supported on stakes.

The peach crop of 1869 was so unexpectedly large that its abundance reduced the prices for all cotemporaneous crops. It affected raspberries and blackberries very disastrously.

The former were never before sold at so low a figure. Blackberries felt the full force of the peach glut. They sold freely and at good paying rates, until peaches came into market, and then, as all the world prefers peaches, the low prices at which they were sold induced the fruit consuming public to switch off from the berries. The result was that blackberries, of which there was an enormous crop, ceased to sell, and thousands of bushels perished ungathered. Such a conjuncture of things had never occurred until then, and it is not likely that so damaging a peach crop will be gathered for the next twenty years. Hence the owners of berry fields are far from being discouraged. Such portion of their crop as ripened early, paid well. It was only the tail end that produced no money. If some one had then been prepared to buy that tail end and convert it into juice or wine, a good business could have been done for all parties interested. Notwithstanding the general drawback of low price for blackberries, an owner of a six acre field, where the soil is very light, and consequently very early, informed me recently that he cleared from that field $900 over cost of picking and marketing. His early soil brought his berries into market in advance of the peach glut, and hence his better success over many of his neighbors.

The strawberry crop came into market before the peaches, and was not injured by the glut. We had a large yield on the vines, as well as millions of them. I have occasionally, for months past, been catechising my neighbors touching results with their strawberries. The testimony is universal that all who had good fruit realized handsome profits. There was no time during the season that prime berries did not bring a top price. I saw two crops that all sold at from sixty to seventy-five cents a quart. I saw another, of the Albany, covering an acre, which yielded $540. It cost about $100 to cultivate it. All these were prime berries. If the owners had had five times the quantity of fruit, they could have found as ready sale at like prices. It was the poor, mean, slipshod growers, who were unable to obtain over six to ten cents a quart. The case, as regards strawberries, has, therefore, become a plain one—the mean fruit has ceased to pay the producer, and he must cease growing it. It has become equally plain that prime berries invariably command paying prices. Of poor berries there is a regular annual glut; but in choice ones it is unknown.

Our three large canning establishments put up last summer about a million quart cans of tomatoes, besides immense quantities of corn, asparagus, pickles, beans, peas, &c. They use up the produce of a thousand acres around them. The practice has been for them to purchase, by contract, the future crops of the neighboring farmers. But this winter they have refused to give us old prices. Instead of thirty to thirty-five cents for a three-peck basket of tomatoes, they now offer to buy at a half cent a pound, about twenty cents a basket. It is doubtful if farmers will produce them at that figure. But the low bid is symptomatic of lower wages for labor. If the price of produce is to come down, wages must follow suit. Taking the average results of last year's operations, it is found that farm labor has been too high. We must, therefore, in some way reduce our expenses. Labor must bear its share of the reduction. If the commission men who sell our products in the great cities would join in the movement, it would be quite an item to us. M.

Wanted.

INFORMATION, as to a cheap, effectual plan of a small home Conservatory, and the best means of heating it in cold weather. How much coal will it require for 24 hours to keep up a proper and regular degree of heat, and at what temperature should it be kept during the different months, from September to May? I am aware that there are books treating on these subjects, but none I have ever seen fully answer my questions. A detailed plan of one attached to the south end of a dwelling, which is to be entered only *from* that dwelling, and hence with a roof sloping only one way (south); also, as to whether or not there should be glass except on the roof, and whether a stove or furnace is adapted to it—and if either would do, how made, etc., etc.—would convey the information herein sought? I desire to erect one, and doubtless thousands of your readers would be equally benefited as I would be.

STANFORD, KY. WOODMAN.

Design for a Bird House.

THIS design was erected for Prof. Silber, Berlin, Germany, and our description is from the original text in the *Gewerbe helte.*

This house, intended for a Pigeon Cage, was planned for the decoration of a garden, and is, therefore, somewhat richer than usual in its appointments.

The material is of wood, principally spruce and oak. From the base rises the column, varying in height, according to taste, from 10 feet to 20, or more, which must be well fastened and braced beneath, to guard against the possible overturning by a strong wind. The column should pass through the pigeon cage until it reaches the rafters of the roof. Into the top of this column is fastened the iron bar, which bears all the brass ornaments and the flag-staff. A gallery surrounds the entire house for alighting, or to permit the birds to move around, and eat of food that may be strewn on the floor. Being constructed of neat carved work, it is very ornamental. The shape of the house is that of a sexagon; in five of the walls are little glass windows, and the sixth, which is the passage door, is also provided with a glass window, so as to afford a thorough inspection with regard to cleanliness within, which is indispensable.

The walls are made of double boards, each division having two parts, which can be easily detached so as to allow all the operations of cleaning and fixing the nests to be performed. The interior boards are fastened by hooks; the exterior ones by means of wooden screws. The remaining space of two to three inches can be filled with straw, so as to give more warmth. The nests are all fastened around the column. The passage hole is covered by a perpendicularly-moving window, with a colored glass, and can be opened or fastened by means of a cord.

It was the desire to adopt such forms as would correspond with the material and its construction; especially care was taken that the whole could be constructed with the simplest tools, such as saw, gimlet, plane and chisel, and by the simplest of workmen—a point in architecture quite desirable.

Fruits of the West, Old and New.

HAVING been one of the first settlers of the prairie country of the West, it may be interesting to some of the numerous readers of the HORTICULTURIST to have a short account of our native fruits, as found in its wild state.

Strawberries were plenty, and larger and better than those of the meadows of New England, because they grew in a soft, rich soil, not so sward bound with grass. Much of our native prairie had a sward as hard and stiff as any blue grass sod I ever saw; but we found no strawberries there. They usually grow at the edge of the timber, where there were some scattering trees and some decaying logs, with a dry, loose soil. In such places I have found them very plenty, of medium size, and rich in flavor. The hogs were the greatest destroyers, by devouring the roots, and of late years we find none worth picking in this part of the country, of thirty years settlement.

Raspberries.—None were found but the Black-cap, though north of the middle of Iowa and in Wisconsin, the red raspberry grew.

Blackberries were plenty in many places, and are to this day—about the same in quality as the wild ones of the East.

Plums.—I think the curculio must belong to the civilized world, for the wild plums were quite free from the attacks of these pests; but of late years all the best and sweetest flavored, wild as well as tame plums, are stung; yet in some of the plum thickets, a little remote from the garden and farm, very good plums are occasionally found. The trees are about ten feet high, many of them less, and from one to four inches in diameter. They were very plenty and abundant bearers, and some of the fruit equal in size and quality to the second-rate cultivated plums. They were of various hues, from golden yellow to almost crimson. Some were green, but we seldom found them of good flavor.

Crab Apples.—Very plenty, but of a sour, astringent flavor; yet the people made sauce, and pies, and preserves of them, and a thorough lover of fruit, like myself, accepted such cookery without a murmur—yes, with thankfulness and hearty good relish—best could be done.

Design for a Bird House.

Grapes.—One variety only—the little blue, sour grape—made a good pie, with plenty of sugar. They also make a good red wine, with one half water and plenty of sugar. The pure juice is as thick as blood.

Of *Nuts*, we have the hazle, the hickory, the butternut, and black walnut, but no chestnut, or beach. I have planted the chestnut, and they bear nuts at seven to ten years, and continue to bear regular. Thus we see that the early settlers were better provided with fruits than they were with many of the other necessaries and comforts of life.

We are making good progress in the way of introducing new and valuable varieties of fruits. No sooner do you start the Wilson seedling strawberry than it is transported to Iowa, in 48 to 60 hours. We are enthusiastic and impulsive, and some among us will buy a humbug as readily as a genuine—that is, a Mexican everbearing as soon as a Wilson—but our noble Horticultural Societies soon separate the genuine from the bad.

We think we excel the East in the apple and the grape, while you excel us in pears and quinces. I have succeeded with the pear very well. I have commenced a young pear orchard, by mixing in evergreen trees, which will somewhat modify our hot, dry climate.

SUEL FOSTER.

Landscape Gardening.

BY ROBERT MORRIS COPELAND.

Forethought Better than Afterthought.

THE necessity for deliberation and forethought in planning country improvements becomes more apparent as we progress in the development of a place—the site selected by its peculiar characteristics involves and compels a certain amount of expenditure, which may be increased by the unwise location of buildings, avenues, &c. It is the duty of an architect to adapt his house to the place where it is to be built; but it would generally be to his business advantage to put it in the most conspicuous position, in order that passers by may see and appreciate his skill. Many questions group around the house, the relation of the rooms to the view, to the lawn, to the garden; how the avenue may best approach the house, and many other considerations which are not the architect's speciality. To understand these questions perfectly and be able to guide his client aright, the architect must acquire a particular knowledge of an art which is sufficient in itself to occupy a man's whole attention. If the architect tries to acquire this knowledge, and practice both arts, he will be likely to excel in neither, and to give unreliable advice, although there are men whose natural aptitude for the treatment of grounds, enables them to give valuable general advice without undertaking to enter into minute details.

The proprietor must, therefore, control the architect, and settle for himself many of the important points of location and aspect, and on the wisdom of the decisions he makes must depend the future economy of his undertakings. At this point, then, if not before, he should step in, cease his constructive labor and make a plan, which will show him just what he would like to do, and enable him to judge of the relation and balance of parts, and the effect of the whole work.

As he makes his plan, he will find questions continually presenting themselves, of what it is best to do, or to avoid; how much will be the costof proposed improvements, &c., all these questions his plan will enable him to estimate, before he has committed irretrievable acts and spent his money. He can easily decide on paper, by the aid of pencil and india rubber, whether it will be best for him to go on, recede, or change his entire plans. As he tries to make his plans he will learn to value the counsel that experienced men can give him, and to understand that it may be better to pay outright for education, in the form of advice, rather than to stumble into it through heavy bills for needless labor, lazy workmen, careless nurserymen, attended by constant vexations and disgust.

A house represents labor and materials, plans, skill, and taste in arrangement and design; the same is true of the surroundings of the house, and if we use unlimited labor and materials, minus skill and taste, the result will fall far below what might have been produced. As we study our ideas out on paper the things we have read, or which have been told us—which, as they passed through our ears, made little impression—acquire real significance.

To make a terrace here, fill out a slope there, raise a hollow to give good grade to the avenue, which seems so easy in talk, we find will require gravel and loam, and excavation, which is measured by dollars, and the amount of money we must spend to make our place, gradually appears; the necessary quantity of gravel and stones takes shape in yards and squares; the number of feet of sods, and hundreds of trees and shrubs stand definitely before our eyes. By thus forecasting the work, we can prepare to meet contractors or decide to employ workmen; can make ready to find our supplies of materials, visit nurseries, and select our plants, and by removing the sources of trouble prevent their ever becoming formidable. Such analysis of the work proposed enables us also to understand the value of special education, and we learn that education is necessary if men are to deal efficiently with the earth and develop out of it, by the aid of grass, flowers and trees, the beauty which we have learned to value and desire.

No amount of study or education will prevent many unexpected delays and unforseen expenses, but we can fit ourselves to meet them calmly, and reduce their number and amount by plans made in advance. We can also, by this preliminary survey, decide whether it will be best for us to have the pleasure or vexation—as it may turn out—of doing our own work, or being our own superintendent and counsellor, or to employ some competent person to expand his or our ideas without our having any personal responsibility and annoyance beyond the first decision as to what shall be done, and the payment of the necessary bills.

Whichever course we take, will be beset with more or less difficulties; contractors and workmen will be unreasonable, and expenses heavy; but having thoughtfully studied the dangers at a distance, they will seem less when we approach them; and not expecting the path to be free from stumbling blocks, we shall take our falls with some composure.

In making a country place, the most fertile source of disappointment lies back of the actual cost and amount, of the work we propose to do upon our grounds, in the disproportion which exists between what we want and what we can afford.

We know that the peculiar pleasure which distinguishes a home in the country from one in the city, lies outside of the house; we expect our pleasure to come from the lawn, the groves, the garden, or the landscape. But when we begin to build we remember most keenly all the discomforts of an ill-arranged house, and the ugliness of many of the houses which are built, and we hope to combine in our own all that is comfortable and tasteful inside, with external beauty. As we discuss what we want, and decide upon what we must have, a house gradually develops which will consume more than all we ought to spend on both house and grounds; and we see that if we build the house we must starve the grounds, and if we save for the grounds, we must content ourselves with an unsatisfactory house.

Most men escape this dilemma by presenting to themselves the lavish generosity of Nature, who, for one bushel of seed gives forty fold, and teach themselves to believe that the house once made, the grounds will in some way make themselves, and when the time comes to do the work, instead of being calmly and philosophically prepared to undertake the necessary expenses, hate the idea of spending another dollar, andeven grudge the cents.

Under such circumstances it is impossible to have a satisfactory country place, whoever is to plan and carry out the work; but the irritation and disappointment do not belong to Nature or the landscape gardener, they are the usual attendants on desires, which are larger than the money which can satisfy them.

The Culture of Small Fruits.

An Essay read before the Concord, Mass., Farmers' Club, January 6, 1870. By Capt. JOHN B. MOORE.

IT is generally understood by the intelligent portion of our community that the use of well-ripened fruit at all seasons of the year, is necessary, and really essential for our health and comfort. That in the long-continued terms of heat which we are subjected to almost every summer, when we become debilitated to some extent, small fruits, the strawberry, raspberry, currant and blackberry, are particularly agreeable, not only as an article of food, but as a cheap luxury; cheap, because they promote health, and because they can be so readily served upon our tables. They are also a cooling and invigorating article of diet for the invalid, and a preventive of sickness in many instances.

In the cultivation of the strawberry, I would select a good, strong soil, rather moist than dry; but if quite wet I should want it underdrained. With us it would be sandy loam, as that is the nature of most of our soils. Many growers prefer a mixture of clay, but a good sandy loam is a good soil for strawberries. It should be old ground that has been cultivated with some hoed crop one or two years, and should be free from weeds and foul grasses. As a rule, strawberries should never be planted on sod ground, as on such they are vey liable to be destroyed by the large white grub. The soil should be well enriched with manure, somewhat decomposed, and a portion of it should be near the surface, for the purpose of giving the plants a quick start. The soil should be thoroughly worked both with the plow and harrow. If there is danger of water standing on the surface, either in summer or winter, it should be ploughed into beds, leaving the dead furrows open for surface drains.

Having prepared the soil and made it perfectly fine, the next thing is to prepare the plants. Let this also be done well; be sure and have good plants; cut off all the runners and dead leaves, and about one-third in length of the roots. If the runners are left on, many of the plants will be pulled out of the ground with the hoe. When the plants are ready for setting, see to it that they are not exposed to the drying winds before planting. Set the plants in straight rows, and of a uniform width, as early in the season as possible after the soil is dry and in good condition, say last of April or early in May, so that the plants may become established before dry, hot weather. The next thing is to cut away all the blossoms as soon as they make their appearance, or the plants will bear fruit and become exhausted the first season. The after cultivation is simply to keep the ground loose, and entirely free from weeds, not only in summer but through the fall, even to snow time.

To secure a good crop, it is necessary that a large portion of the labor for its growth should be performed the first year. About the first of December, the bed should be covered with coarse hay or straw, rather thin, but evenly, to protect the plants in winter; this completes the first year's work, and it is now too late to remedy any defects from bad cultivation, bad plants, or want of manure. If the grower has unfortunately allowed anything of the kind to happen, he must take the consequences, which will be a less crop of poorer fruit.

In the spring, as soon as the ground becomes settled, the hay should be raked from the bed, the spaces or paths between the rows worked over, and the whole bed thoroughly cleaned from grass and weeds, and some time in May the paths and all vacant spaces covered with hay to keep the fruit clean. This constitutes the labor until the time of picking, which should be carefully and cleanly done, and without bruising the fruit.

After gathering the crop, the question of a second crop from the same bed, is to be considered. If the plants have been cultivated in rows or hills, and the runners kept cut off, then I would keep it over the second year; but if in the matted bed system, I would plow them up immediately after the fruit is all picked, and sow with turnips or oats. If a bed is to be kept over the second year, it will be very much improved by mowing the foliage off clean to the ground, as soon as you have finished picking the fruit.

Raspberries.

Raspberries require a strong, rich and rather moist soil to succeed best, and should be planted in rows from six to seven feet apart, and three feet in the rows. When planted, the canes should be cut away nearly to the ground, so as to prevent their bearing the first year. Late in the fall, the tops should be bent over to the ground and covered with soil taken from between the rows. Almost every variety would winter-kill unless protected in the winter. In the spring, as soon as the frost is out of the ground, the canes should be uncovered and tied to stakes or a wire. I find a wire as large as a telegraph wire, fastened to posts and stretched directly over the middle of the row, about three feet above the ground, the best. Have the canes tied to the wire with a matting string, and spread evenly on the same. Do not save too many canes, or at least more than the roots can support vigorously, if so, the result may be poorer fruit and weaker plants. The ground between the rows should be worked over in the spring, and kept level, and, if possible, mulched with cheap hay. I use the same hay that has been used on the strawberries for that purpose. Raspberries are very sensitive to the drought, and mulching often saves the crop. With good care and manuring, the bushes will continue to bear a number of years.

Currants.

The currant is another small fruit, and is a general favorite, as it can be used in so many ways, and continues in bearing so long a time. It is also easily grown, but to grow it in its greatest perfection, the soil must be rich and well cultivated, and a portion of the old wood cut out every year.

There are two insects that trouble the current very much in some localities. I mean the borer that works into the center of a branch, and eats its way through the pith some distance, and finally destroying the entire branch. He can be kept down by frequent attention, cutting out all weak and sickly looking branches, and burning them. The other is the leaf worm, and is more to be feared than the first. They come at two or more times in the season, and if not prevented will eat up the entire foliage, which often causes a loss of the crop. They can be destroyed by dusting the leaves when wet with white hellebore, powdered, or by syringing with carbolic acid soapsuds.

Blackberries.

The high bush blackberry, when grown in perfection and well ripened, is one of our finest small fruits. This fruit was not cultivated until about the year 1840. The Dorchester was the first variety cultivated to any extent, and was brought into notice by the late Capt. Lovett, of Beverly. This variety was soon followed by the Lawton or New Rochelle, Newman's Thornless, and some others, and still later by the Kittatinny, Wilson's Early, and other kinds. Both of the last named varieties are thought to be more hardy, and to produce larger fruit than the Dorchester, but probably of no better quality.

The high blackberry is liable to have its canes killed in our severe winters, unless covered. The canes are stiff and brittle; some varieties more brittle than others, and are difficult to lay down and cover with earth without breaking them more or less. The riper the wood of any plant in the autumn, the more successfully it can withstand the cold of winter; therefore, it would be better to select a soil that is high, dry and warm, where the canes will ripen thoroughly, and not allow them to be stimulated by high manuring to make a large and late growth.

Many persons fail to produce satisfactory crops of fruit from planting varieties not naturally productive, or not adapted to their particular soil; for that reason it becomes very important to select the right kinds.

We want a variety that will grow well, be productive, of large size and regular form; of a bright, handsome color; of good quality, and firm enough to bear transportation without injury. It will be impossible to get all these qualities in one fruit, therefore, get as near to it as you can; but at any rate, if you are growing for market, see that you have a variety that is productive and marketable.

A person growing strawberries for market ought to plant two or three varieties coming in at different times in the season, if he can find them adapted to his soil. For profit there is nothing better than the Wilson's Albany,—for eating without cooking, there is nothing *poorer* in quality; still, it is good to yield, to ship and to can. Of raspberries, Knevett's Giant and Franconia are the principal varieties grown for this market. The Clara and Philadelphia are attracting considerable attention, and are said to be sufficiently hardy to bear our winters without protection. The two varieties of currants now thought to be the best for general use are the La Versaillaise and Dana's New White Transparent. Both of these have large bunches and berries; the white is tender fleshed, and not quite so acid as the red varieties, and is undoubtedly the best white variety in cultivation.

Now as to the future or continued demand for fruit, what will it be? A friend of mine, one of the best and most skilful growers of strawberries in the State, says that the market of Fall River consumed 2,400 boxes of strawberries in 1861, at an average price of seventeen cents per box; in 1868, 11,000 boxes, at an average price of twenty-five cents! The population increased in that period forty per cent; the consumption of strawberries over three hundred and fifty per cent!

There is a certain fascination attending the cultivation of fruits and flowers, and to be successful, it requires a more thorough knowledge of cultivation, preparation and adaptation of soil to the particular plant, including manuring, than it would require for some other crops. This, with the originating of new varieties, either by hybridization, or the natural variation from seed, is really the *poetry* of farming.

Editorial Notes.

Our Silver Wedding Presents.

Our editorial duties are frequently relieved with the occurrence of many pleasant little episodes, and items of genial reminiscences. In this, the twenty-fifth and *silver wedding volume* of the cherished Horticulturist, we receive from many of its old snbscribers, who have taken it from its very beginning, redoubled tokens of esteem and good will. From far-off California, Canada and England, subscribers remember our anniversary with *silver* gifts, and as we write, the messenger of the mails lays in our hands the following dainty note:

Lilly Pond Cottage,
Sag Harbor, Long Island, N. Y.,
February 10th, 1870.

Henry T. Williams, Esq.:

Dear Sir.—Your January number of our favorite periodical informed us 'tis the anniversary of its Twenty-fifth Birthday—"The Silver Wedding Reception."—Our subscription we therefore send you in silver, a silver coin for each year–25 10c.–$2.50, and the pretty purse my wife insists you will value more than its contents, as it will tell you our love and grateful appreciation for the dear old Horticulturist, associated with so many pleasant memories of the past.

With best wishes for your health and happiness, and a successful career towards the anniversary of the golden wedding of "our journal."

Sincerely yours, J. W. S.

We open the letter and box, and find a tasteful purse full of the real old fashioned silver, and for once specie payments are resumed in our office. Thanks, friends, for your continued affection. It is the privilege of such a position as that we hold to talk so familiarly of such little incidents as this; for the circle of our readers, though not as large as that vast crowd of profitable journals whose issues are so large and frequent, are still none the less interested than ourselves in maintaining, with willing hands and unfailing zeal, a journal whose true field is to add happiness to rural life, and help to adorn country homes with the best of Nature's f ir gifts. Our Silver Wedding Reception thus favorably begun, we hope will still continue, and the best evidence of our efforts are the excellent illustrations and contributions with which we fill our pages. Time will show that even these improvements will be succeeded with others still more tasteful and pleasing, and these again by others of increasing beauty. We mean "not to be weary in well-doing."

Small Trees.

Quite a number of nurserymen have told us lately of the wonderful change in the sentiment of *orchard planters* in behalf of *young trees*. Where once large trees of at least three years growth were demanded at rates of $40 to $60 per 100, now the tendency is to trees of not over two years growth, and with a large proportion only one year old trees are preferred. We count this a healthy sign of horticultural taste. This is fulfilling the principle we have endeavored to inculcate, *beginning right*. Many who purchased *large trees* for *immediate planting*, now find that if the soil is well prepared, and young trees are well planted and taken care of, these will, in five or six years, be in a better condition than the others. The gain is not to the planter alone, but to the nurseryman, for land and capital which has hitherto been tied up for three years, can now turn itself over yearly, and prove doubly profitable. If the agricultural and horticultural press still continue to advocate as wise and excellent practices as this, we may expect in course of time not only a greater horticultural improvement, but unparalled prosperity.

Tree Peddlers.

The story reaches us that a tree peddler, in visiting a town in the West, returned after a few weeks sojourn, with orders for nursery stock amounting to $7,000, while the local nurseryman could hardly count a $1,000.

A tedious tirade is poured forth at intervals against these traveling agents, with how much justice we cannot say, for in many cases we think it possible the buyer does not get the best of stock nor the best of the bargain, still we *do know* a great many plant trees, and good ones, who never would have done it had not the agent visited them. The traveling agent is but a running advertisement for the house he represents. If he always sells good stock in any place, at any time, he can usually count on a good trade, and a good reputation there every year he revisits the same locality. Many nursery firms have built themselves up into a profitable and enviable eminence, in a strictly honorable manner, by the use of *agents*, who could never have advanced one-fourth as far as they have without them.

Good agents and good nurseries are an honor to the community, and the usual complaints against the short-comings of irresponsible parties, can hardly affect those of good established reputation.

We must in all candor say, that he who buys of an agent *on time*, as is usually the case, has generally to pay from fif y to one hundred per cent more than if he ordered direct *for cash* from the same parties. We know two parties who bought pear trees lately, one *on time* at $450 per 1,000, while another for cash at $125 per 1,000. Both were good trees, and equally good, but one was bought from a tree agent, and the other ordered direct from the nursery.

The principle of *long credit* is equally disastrous to the nursery trade as to the usual lines of mercantile business, but those who employ *tree agents* must expet to assume great risks and occasional heavy losses from irresponsible or really malicious purchasers.

The Grant Raspberry.

A NEW variety now grown at Canandaigua, N. Y. Is a cross between the Franconia and Brinckles' Orange, of delicate flavor, conical shape, very solid, productive, earlier and larger than the Philadelphia.

Fertilizer for Greenhouse Plants.

MESSRS. LISTER BROS. have favored us with a box of their new preparation *The Vitalizing Compound.* It is in the form of a fine powder, pulverized bone, and of the finest possible particles, almost so fine as to float in the air with the slightest possible breath. It is soluble immediately in water, and when used in moderate quantities as a liquid manure for greenhouse or window plants, it quickens them immediately into life and vigorous growth. As we have had a personal acquaintance with Messrs. Lister Bros. for several years, we can only add, that we have always found their statements perfectly trustworthy, and their articles perfectly pure.

Bicknell's Village Builder.

THE *Village Builder* is the title of a new architectural volume presented to us by Messrs. A. J. Bicknell & Co., of Troy, N. Y. It contains a few designs of cottages of moderate cost, and tasteful yet inexpensive exterior, but the major part of the book is devoted to larger structures, villas, churches, stores, country houses and public buildings. There are upwards of fifty large lithographic plates, well executed and explained, and to the professional architect it will be found a valuable accompaniment to the other excellent architectural works published by the same firm. Price $10.

Editorial Acknowledgments.

WE are indebted to the following for flower and vegetable seeds: Alfred Bridgeman & Son, a selection of flower seeds. Hovey & Co., a collection of flower seeds. Commissioner of Agriculture, a large assortment of vegetable and flower seeds.

Pleasures of the Garden.

As the taste for the improvement of small fruit gardens increases and extends, we see the evidences in the disposition of the proprietors to order a *greater variety* for the purpose of experiment. That family that commenced two or three years ago with only the Wilson Albany strawberry in the corner of their vegetable garden, will feel this year a desire to add *something else*, perhaps a few more varieties of strawberries, the latest and best; or, perhaps, try some of the new raspberries, blackberries, currants, grapes and vegetables. As our country becomes more and more populous, small farms and village gardens will become more numerous, and choice fruits for these purposes will become in greater demand. To those who have a genuine taste for horticulture, nothing gives so excellent a satisfaction as the *specimen grounds*, containing all the varieties cherished by the cultivator. How interesting in fruiting time to test the difference in flavor, the size, color, firmness, productiveness, hardiness; or, if shrubs are cultivated, to watch their beautiful bloom and habits of growth. We cannot fail of an intense gratification in a study so simple and useful as this, for while instructing ourselves it is an incentive to others to adorn their homes with similar improvements, and though disappointment must be expected, still the good success obtained in other ways must be more highly appreciated. A true horticulturist is not dismayed by occasional failures. There is enough, more grand and delightful beyond.

Iron for Fruit Trees.

We have seen some notable instances of success from the application of iron filings to fruit trees. A peach tree becoming affected with the yellows, and its long, wide, straggling branches having split apart in a storm, one of the gardeners took an iron spike and drove through the split parts, firmly fastening them together. The tree gradually recovered its health, and for several years afterwards bore very fine crops of finely colored fruit. The result was attributed, and we think justly, to the action of the iron on the sap of the tree.

At a recent meeting of the Farmers' Club, New York, Mr. J. A. Wagner, living on Long Island, about fifty miles east of the city, brought for exhibition prunings from his orchard, illustrating the effect of putting iron around the roots of peach trees. He took an old place, with twenty trees in the orchard, full of dead limbs, with yellow leaves, and the crotches oozing thick gum. He gave the earth a good top dressing of iron, breaking up old ploughs and stoves, and filing and scattering them well. The effect has been marvellous. The trees have renewed their growth, look strong and thrifty, the bark is tight, the leaves all green, and the borer has disappeared. He thinks the slag of iron furnaces ground up and spread in orchards, would prove a very valuable fertilizer for all orchards.

We have no doubt this success was attributable entirely to the application of the iron, but the rule will not always hold good for all trees, or all soils—there are conditions to success:

1st. In soils that are already heavy, and contain considerable mineral matter, the application will be of little or no value.

2d. Good, light, sandy or loamy land responds most quickly to its use, and if warm and well cultivated, the benefits are almost immediate.

3d. The kind of trees is also more important than all other points. On apple trees we think there would be very little benefit. On pear trees we know it is of the highest value, both in adding to the health of the tree and imparting a splendid coloring to the fruit at time of ripening.

But the *peach* tree is most sensitive to its effects. The specimen branch shown at the club by Mr. Wagner, was remarkable for its perfect health and luxuriance of growth. We could not say whether iron would be a perfect protection against the borer and other insects, as we think every tree needs an annual examination with *the fingers*, and no other specific will answer.

Iron slag is a poor article to use. *Blacksmith filings are always the best;* and a peck scattered around the roots of a tree is a sufficient application at one time.

Take Care of your Fruit Trees.

Not long ago we saw two men endeavoring to plant a pear orchard of one thousand trees, and we watched their methods of planting.

They dug holes not quite two feet deep and two feet wide, into this threw a little muck, and then planted the trees. The field was naturally wet, and we thought should be drained. On looking for tiles we found none, and no evidence of drains except one drain of poles, running through the lowest part of the field, and not more than two-thirds of the way across. We could not help expressing the feeling that these men would see the day to regret so slight an attention to the necessities of fruit planting.

What will be the result? In holes with cramped space, cold ground, unpruned limbs, standing water, etc., these trees, costing fifty cents each, will in three years be reduced one-half in number, and the rest live an indifferent existence.

It would have been better to have spent one-half that sum on but *one acre* of land, simply planting one hundred trees instead of one thousand, preparing the ground well, draining thoroughly, manuring well, and then every spring and fall prune and search for insects and worms. At the end of ten years this little orchard would be in perfect health, a beautiful sight, and wonderful in productiveness. Most fruit growers attempt *too much*. Instead of concentrating their efforts upon a few acres, they spread their capital over many, and lose on all. True success in fruit culture comes only in *careful beginning, moderate progress*, and thorough work. *A little land well tilled brings a good purse well filled.*

Importance of Good Plants.

A class of cultivators too eager to reallze large profits, and with too small capital to cultivate properly, buy yearly an immense quantity of *cheap plants*, grown broadcast in some second-class nursery, hastily gathered, as hastily packed, and, if surviving the journey, are more hastily planted.

We have had ample opportunity to see the class of articles sold by these *cheap dealers*, and in nearly every instance we found them the *dearest* purchase one could make.

For instance, if we go to a responsible man, who asks ten dollars per thousand for strawberries, we are pretty sure of getting *good plants, genuine, well packed*, and at the end of the season we find them all alive, vigorous and healthy; but if we purchase from a *cheap nursery*, we find after many disappointments our plants are *mixed*, poor quality, starved, poorly packed, and have a natural tendency to *die away*, so that at the end of the season the living plants have cost as much as those bought at ten dollars.

The effect of such *cheap prices* is simply this, it creates a class of poor cultivators, who produce

only poor fruit, which practically ruins the market, and we see glut after glut, when there should be a steady advancing tide of prosperity.

We say to all purchasers *get good stock;* do not aim to put out too much the first year, avoid cheap dealers, grow only choice stock, and your visions of good fruit and steady prices will be realized without great effort.

Greenhouses of George Such.

We spent a few hours lately very pleasantly in the greenhouses of George Such, at South Amboy, New Jersey.

Mr. Such has made the Gladiolus a speciality, cultivating several hundred varieties, and having in front of his residence, in a long bed, as high as 100,000 at a time. This flower, so beautiful and delicate, needs still greater popularity than it has yet gained, and a bed of these in full bloom, is a reminder of our obligations to those horticultural patrons who take delight in introducing and improving lists of new and superior varieties.

In Mr. Such's houses are many rare and beautiful *Orchids*, *Marantas* of exquisite foliage, new varieties of the *Coleus*, and other horticultural varieties not often seen or even heard of.

Mr. Such has remarkable success in production of plants, and the quality, health and vigor of everything in his collection, speak highly for his floricultural skill and taste.

New Roses.

When in Philadelphia a few weeks since, our attention was called to a few new varieties of roses lately imported by Mr. Dreer, from England and France.

Aurora de Matin—New hybrid perpetual, delicate pink color, very fragrant.

General Desaix—Hybrid perpetual, deep red, petals well turned, beautiful blossom.

Comte Rainebaud—Very deep red, has little fragrance, but a flower almost perfect in form.

La France—New, hardy, very free bloomer, and fine perfume. Hybrid perpetual.

Jean Hachette—Brilliant crimson.

Prize for a Blue Dahlia.

A botanist in England has offered a prize of $20,000 for a blue dahlia.

The Flemish Beauty Pear.

In many localities this beautiful variety is a perfect failure, owing to blight, but in others it escapes for a long series of years. For instance, we have just taken up a western journal containing an account of a visit to four different orchards in Wisconsin, in every one of which the Flemish Beauty was a perfect success, and the owners were intending to plant largely. In one orchard a Flemish Beauty pear tree yielded two and a half bushels; in another was a tree seven inches in diameter, and had borne for a number of years.

We say now as we said before, *plant moderately* of doubtful varieties, but we would be loth to omit the Flemish Beauty from any list for a fair trial.

Belle Lucrative Pear.

When the *good time* comes, in which people will judge of fruit by *quality* rather than size and color, we speak a good word for the Belle Lucrative pear, a splendid grower, a beautiful tree, productive, healthy and *perfectly delicious* in its quality. Fruit growers do not omit it in your lists for garden or field planting.

Attar of Roses.

The beautiful perfume known as *Otto of Roses*, is made (the genuine article) at Umritsur, India, and is produced from a rose that blossoms only once in a year. Ten tons of petals of the ordinary country rose (*Rosa centifolia*), are used annually in attar making at Umritsur, and are worth from twenty to thirty pounds a ton in the raw state. The petals are placed in the retort with a small quantity of water, and heat is applied until the water is distilled through a hollow bamboo into a second vessel, which contains sandal-wood oil. A small quantity of pure attar passes with the water into the receiver. The contents of the receiver are then poured out, and allowed to stand till the attar rises to the surface in small globules, and is skimmed off. The pure attar sells for its weight in silver.

The Gardeners' Monthly.

Under the direction of Mr. Meehan, the *Gardeners' Monthly* has closed its *tenth year* and enters upon its eleventh. Besides the Horticulturist, this is one of the instances of successful horticultural journalism in the United States.

We always read Mr. Meehan's articles with appreciation, and believe no horticultural writer has a better practical knowledge of rural life, gardening and floriculture.

Other horticultural journals occasionally appear, with ambitious pretensions, but fail sooner or later, because they are not practical enough, and have not measured sufficiently well the difficulties of publishing a horticultural journal.

It is of very little use to aim to maintain a *high tone* in a journal at the sacrifice of matter of *interest*. In no other kind of journal does success so much depend, as in providing reading matter of simple, plain, unpretending, practical, every-day gardening character. If we forsake this, *every thing* is *lost*. The *Gardeners' Monthly* and the HORTICULTURIST, are both established successes, travelling nearly the same path, well appreciated every where, and not likely to be run off the track by more ambitious rivals.

Cannas as Ornamental Plants.

STOKE NEWINGTON, LONDON, *March* 26, 1870.

EDITOR HORTICULTURIST: Take pity on a poor unfortunate fellow who has lately had too many irons in the fire, and has been, and gone, and burned his fingers. When I wrote on 18th Jan. last, the heavens and the earth appeared to be changing into Irish stew, so absurdly warm and wet was the atmosphere, and the barometer high and steady as a rock. A few hours after winter returned; the rivers and lakes were frozen, and for a time the traffic in the Thames immediately about London, was very nearly brought to a dead lock. With the exception of three or four halcyon days, it has been winter since then, and it is winter *now*. Snow is falling fast; the world is wrapped in a white blanket; not one leaf of thorn or lilac has expanded yet in this district, nor one flower of apricot or peach is open. The British horticulturist can take comfort of this state of things, for a late spring with us is usually the harbinger of an abundant summer. The variableness of our insular climate is most strikingly displayed in spring; we may have the heat of June in March, and vegetation be aroused into full activity ere its wonted time. But April may be characterized by keen frost, biting north-east winds, or a freezing slop made of rain, snow, sleet and fog, all mixed together, and the end may be the total destruction of the fruit crop, and the blackening and shriveling of every green leaf. We are proud of James Thomson, and delight to invoke the season of renewal in his words:

> Come, gentle spring, etherial mildness, come;
> And from the bosom of yon dropping cloud
> Veiled in a shower of shadowing roses,
> On our plains descend.

But you may depend upon it, every home-born Briton dreads the spring, and as the dreary days go by, with sleet, and snow, and rain, and delusive sunshine, sighs for a more constant clime, and would gladly exchange for a summer of only three months duration, if he could only be sure of it. Depend upon it, the frequent renewal of a feeling of discontent, which the changeableness of the spring induces in men's minds, is one of the principal causes of emigration from these parts, for it prompts many to quit the country who could do well, and have been doing well, and have positively no reason for emigrating except that they are sick of the climate. In my journey home from town yesterday by train, the talk of the whole company—consisting almost exclusively of city men—consisted more or less in abuse of the weather. One young fellow, apparently fit for any climate, and any sort of work, heaved a sigh as he stepped in, and said, "I should like to get out of this beastly climate." An old man of the most venerable cut, responded, "so should I, but I couldn't get my living any where else—your time's all to come." These matters may not interest you, but I shall justify them because they interest me, for the chief consideration in the endeavor to convey any useful information to readers on your side, appears to be, to what extent do our respective climes agree and differ.

Now here's a case which interests me much. In the first place, the varieties of the *Canna* are acquiring immense popularity in this country, and indeed throughout Europe, both as necessary and noble elements in "sub-tropical" gardening, and as suitable subjects for conservatory decoration. You do not need to be told that in the books the *Cannas* are described as stove herbaceous perennials, but it may be news to you that the *Cannas* are now established here as hardy plants that may be left in the ground throughout the winter without the least fear of injury, provided they are sheltered by a thin sprinkling of litter. In 1857, we had a large lot of *Cannas* in the experimental garden, and they ripened seed abundantly. In 1858, a stock was raised from our home-grown seed, and hence every year until 1865, we grew *Cannas* from the seed of the previous year, and only left off then because we were tired of it. This was virtually to bring the *Cannas* into the category of half-hardy annuals, because, of course, the seeds were always started in heat. It was reserved for one of our ablest men—I will say also for one of the gentlemen of the profession—to do better for the *Canna* than that. Mr. Gibson, the superintendent of Battersea Park, took to leaving beds of *Cannas* in the ground, giving them the protection of a coat of straw, over which a little earth was thrown for the sake of appearances, and the experiment proves first, that these noble plants may be safely kept that way; and secondly, that the proper way to grow *Cannas* is to treat them as hardy plants. When thus left out, the next growth is gigantic; they flower profusely; their ample leafage determines for them the highest place in the ranks of decorative plants for the summer garden.

So far good, but the subject is not disposed of. In the southern parts of France and Italy, where the climate is favorable to the undertaking, the improvement of the *Canna* is being carried on in a systematic manner, and the results already obtained are at once valuable and wonderful. First amongst the practitioners in this line, I must name my excellent friend, M. Jean Sisley, of Lyons, who has originated an entire collection of cross-bred *Cannas*, possessing the most various, and the most pleasing characters. M. Sisley gives this simple prescription for the cultivation: "treat the

Canna precisely as you would a dahlia." His practice is to take up the roots in autumn, and store them in a cellar. At the end of March he brings them out, and starts them into growth in a temperature of about 60° Fahr., and in May the roots are planted. Last year M. Sisley sent me dormant roots of all the best *Cannas* known, and instead of starting them in heat, we simply potted them in sandy stuff in small pots, and put them on a top shelf of a cool greenhouse, where the heat of the sun started them nicely, so that in the second week in June they were fine strong plants, fit to make an immediate effect in the flower garden. I shall not attempt to enumerate the species from which the improved varieties have been bred. You will find them in the books. It must suffice to say, that in characters the new varieties take a very wide range; some are tall and stately, with immense leaves of the brightest shade of green, and pale lemon colored flowers. Others have become tinted or purple, and even black is blended with scarlet or crimson flowers. The more robust kinds will attain a height of six or seven feet (or more); others are so drowsy that they rarely exceed fifteen or eighteen inches. The sorts selected by M. Sisley, which have all been grown at Stoke Newington, are, I believe, the best among hundreds, and I think I may safely say, that amongst hundreds, a really bad one is not to be found, for in its original unimproved form the *Canna* is one of the most beautiful herbaceous plants in the world.

Amongst the newest field plants which are fast becoming favorites here, is the group of flourishing *Begonias*, as introduced by Messrs. Veitchii. One of the first in the series to make a sensation was *B. Pearcei*, named in honor of a brave collector who died honorably in harness. This is a charming plant for the stove or intermediate house; it has fine dark leaves and bright yellow flowers. Then *B. Veitchii*, with scarlet flowers followed, and with it a whole batch of varieties (not species certainly, though named as if they were), closely related to *B. Veitchii*, the best of which, because the most distinct, is *B. rosæflora*, with large rose-colored flowers, and extremely elegant ha of growth. We have lately flowered a still newer kind, which we prize beyond them all; it is called *B. diversifolia*, on account of a few slight variations in the prevailing outline of the leaves. The flowers are most abundantly produced, and being of a most cheerful tone of deep rich pink, are m welcome in the early months of the year. So far good. Again, these pretty plants thrive with the simplest treatment under glass, and flower in winter and early spring, if young plants are grown in an intermediate temperature for the purpose. But at least half a dozen of these new flowering *Begonias* promise to prove hardy in the milder parts of Britain, and it may be safely said, that *B. Veitchi* and *B. diversifolia*, the two best in the batch, are the hardiest of all. They will be invaluable for sheltered nooks in rookeries, and also for cultivating in unheated houses, with other plants that need a little shelter for their perfect development. We shall probably never see the Chinese primrose (*Primula sinensis*, or *P. prænitens*), established in Britain as a hardy plant, but in France it is being done, and we may even cherish the hope that in the southern parts of Europe, and especially in the mountainous lands, this beautiful plant may soon become a common inhabitant of the wayside and the wild retreat. I went into a very old and dirty greenhouse of vast dimensions the other day, and saw the chinks between the stones of the pavement, and the whole surface of the brick walls, from the ground to two or three feet high, dotted with little tufty self-sown plants f this primula. On making inquiry about the origin of the crop, my friend, the owner, said, "oh, we grew a tremendous lot of seed last year for the trade, and towards the end of the business we were careless, and allowed the seed to ripen and run to waste." Having touched on the acclimatization of tender plants, it may not be uninteresting to you to learn that during many years past, hardy herbaceous plants have been shamefully neglected or cruelly abused in this country, but the taste for them is reviving, and they consequently occur as interesting features of floral exhibitions. A persevering neighbor of mine, Wight Ware, of Tottenham, has established a great trade in hardy plants, and of the more popular kinds grows pieces of five or six acres each, and can show hundreds and thousands of potted plants of some of the rarest kinds. The scarlet pelargoniums were the usurpers of the space and the attraction once bestowed upon herbaceous plants. But our amateurs now are less afflicted with the scarlet fever than for many years past, though the Zonale pelargoniums will never cease to be favorites, for the very good reason that we cannot do without them. One reason why the herbaceous plants are regaining ground is, that the pelargoniums have been so much improved that attention has been somewhat diverted from the parterre to the greenhouse. Sheets of glaring colors out of doors are less thought of than tri-color leaved and double flowering geraniums. Taste soars higher; the eyes are less wearied with intensity of color, and the quieter beauty of the herbaceous plants obtains recognition. A few bold spirits here have labored by pen, by tongue, by example, to tone down the misdirected rage for color, and show that amateurs were sadly limiting the range of their out door pleasures, by giving overmuch heed to mere bedding effects. This sound argument has been thrust home again and again, that large quantities of a few sorts of plants afford less entertainment (to say nothing of instruction), than small quantities of many sorts of plants, and therefore collections are more to be desired than mere stocks. The argument has taken hold, taste improves, mere color and tinsel is less sought, and beautiful plants of all kinds, whether hardy or tender, obtain more and more attention, to the improvement of our gardens, and the enlargement of our recreative resources. But pray do not suppose that pelargoniums are going out of cultivation, for the truth is, the Zonale group, with its almost endless varieties, and striking dissimilarities of character, are now,

as for many years past, the most popular of all plants grown for ornamental purposes, and the first thing every amateur does on receiving a florists' catalogue, is to turn to the section devoted to "geraniums," and there lose himself for a season in names and descriptions, and by the mere black and white think "his very een enriched." In my next I shall endeavor to weave up a little geranium story, and perhaps offer you something new on the subject. SHIRLEY HIBBARD.

The Best Cannas at Present Cultivated for Garden Ornament.

Auguste Ferrier (Chati).—Rhizomes small; stalks very thick, green; leaves very wide, oval, stiff, acuminated, deep green; fine carriage; flowers medium, clear orange, uncommon; height 3 m. or more. One of the finest Cannas after Barrilleti.

Annéei rubra (Année).—Rhizomes good thickness; stalks medium, purple; leaves acuminate, deep green striped purple, good size, fine habit; flowers bright orange, well formed; one of the most free-flowering Cannas; height 7 feet.

Bihoreli (Jules Chrétien).—Rhizomes conical; stalks purple, numerous; leaves deep green striped garnet; flowers medium size, clear vivid red; very free flowering; height 1 m. 60 c. to 75 c.

Barilleti (Chati).—Rhizomes conical; small stalks, very vigorous, garnet; leaves very large, wide, deep purplish green; habit magnificent; flowers small, orange, uncommon; height 10 feet. One of the finest Cannas after "A. Ferrier."

D'puté Henon (Jean Sisley).—Rhizomes cylindrical, elongated; stalks green, of medium size; leaves glaucous, elongated, stiff, sharp; flowers large, well formed, clear canary-yellow, guard petals bright nasturtium, very floriferous; height 7 feet.

Daniel Hoovibrenk (Jean Sisley).—Rhizomes big; stalks strong, green; leaves large, glaucous green, acuminate; flowers large, bright orange; free flowering; fine habit; height 6½ feet.

Edward Morren (Jean Sisley).—Rhizomes conical; stalks green, numerous; leaves clear green, longish; flowers large, well formed, yellow, very much spotted with bright nasturtium-color; very floriferous; this is the finest Canna with spotted flowers; height 6½ feet.

Grandiflora floribunda (Année).—Rhizomes cylindrical; stalks middle size, clear green, numerous; leaves medium or small, clear green; flowers bright orange, middle size; very floriferous; fine panicles; a fine plant of grand effect; height 1 m. 35 c. to 50 c.

Insignis (Chati).—Rhizomes cylindrical; stalks medium, violet-purple; leaves oval, sharp, delicate green rayed and edged with purple; very fine habit; flowers orange; very uncommon; plant remarkable; height 7 feet.

Mar chal Vaillant (Jean Sisley).—Rhizomes rather large, conical and cylindrical; stalks strong and abundant, deep purple-green; leaves large, elongated, erect, deep purple-green; flowers large, well shaped, pure orange; very free flowering; height 8 to 9 feet.

Primices de Nice (Année).—Rhizomes conical, cylindrical; stalks clear green, good size; leaves clear green, fine form; flowers large, very well shaped, very lively yellow; very free flowering; the finest Canna with yellow flowers; height 4 feet.

Rubra superbissima (Année).—Rhizomes large, conical; stalks of great size, garnet-red; leaves wide, round, large, deep very purplish green; flowers medium, orange-red; this is the finest Canna with purple leaves; height 7½ feet.

LYONS. JEAN SISLEY.

Notes from Contributors.

Stable Manure, Muck and Commercial Fertilizers for Poor Sandy Land.

I AGREE to what you say about these in your March number, page 84; but when neither muck nor manure are to be had, as is the case in many a barren region, the only resort is to commence with guano, bones, superphosphate, or some special commercial fertilizer. I have plenty of muck adjoining my poor sandy land, near the sea coast of New Jersey, and am making a liberal application of it, also of all the stable manure I can get, which costs at least ten dollars per cord delivered on my farm. Still, as I had not a sufficient supply of these last season, I was obliged to resort to fertilizers for some part of my productions. The very dry season from early in July to late in September, told greatly against all my experiments, yet I found I could grow good corn, buckwheat, oats, peas, clover, beans, turnips, melons, pumpkins, and some other crops, with these fertilizers alone, on the poorest of Jersey sand and gravel. The smaller seeds, such as lettuce, parsnip, carrots, &c., did not vegetate at all, and beet seed very poorly. Whether this was owing to the drouth, I cannot say, but think not, as we had plenty of rain in May and June. The first seven products mentioned above may be turned in as green crops, more seed and fertilizers sown upon these, and then turn in again, till the soil is sufficiently enriched to bear large crops. Feed these off on the farm, and return the manure to it, and then you may do well enough. I will grant that the above is a slow and somewhat expensive process; but what can one do better when it becomes necessary to cultivate such land?

When Squankum marl is conveniently and cheaply obtained, it is especially good for grass lands. You can also raise fair crops of potatoes by composting one hundred pounds of Peruvian guano with one hundred bushels of the marl, and applying about one-third of a shovel full at the time of planting directly on the seed. More of this compost, however, will give larger crops, and enrich the land. One need not hesitate to apply at the rate of four hundred bushels of marl and four hundred pounds of guano to the acre, for potatoes. Lime has a good affect on poor sandy lands. Give twenty bushels to the acre the first application, following with ten bushels per acre for the three succeeding years. This is considered better by our old experienced farmers, than to apply fifty bushels per acre at a single time.

A. B. ALLEN.

NEW YORK.

Kilmarnock Willow.

I WRITE to request of you some information. If convenient to answer in your journal, please do so in your next issue, and oblige me.

There was a gentleman who showed me a tree he had bought for a Kilmarnock willow, which he said would grow on the Mahaleb cherry stock, but as the stock did not resemble the stocks I bought for Mahaleb, and as it seems to me that willow would not be likely to grow on cherry, I think he is mistaken as to his being a Mahaleb, or I have been deceived in my stock. Now please tell me what kind of stock it (the willow) should be grafted on, and the best mode of grafting them. Also where the right stock can be had. Best time to graft. By answering, you will oblige me very much.

SPINGFIELD, W. VA. JNO. C. NEWMAN.

P. S.—Having put out an orchard some ten or twelve years since, and the borers being bad on them, I tried common hard soap on them (having heard of washing with suds, but it being a big job to wash a large number of trees, I took a shorter way). About the last of April I took the soap and rubbed it all over the bodies and large limbs, and pressed lumps of it in the forks of the larger limbs, and during the summer, when it rained, the trees would be in a lather. In the fall, when I examined the trees, in some forty trees I found about six or eight grubs, and they seemed to be in the crevices where the soap did not reach them; in the other trees that were not soaped, I would get as high as half a dozen from one tree, and some of the smallest trees were killed by them. I rubbed the soap on until the crevices in the bark were filled completely. It is no doubt an old thing ere this, but is new to me, and is the best remedy I have tried except cutting them out and killing them.

Reply.—The Kilmarnock weeping willow is but a variety of the *Salix caprea*, one of our old common varieties, always found growing along our brooks and rivers. It was discovered in the west of Scotland, a few years since, and introduced into this country. The usual varieties of the willow are best propagated by cuttings placed in the ground and covered two-thirds their length, but the Kilmarnock can be grafted on the common variety. It must be grafted high, on the top of a strong, straight, stout stem, well rooted, very early in the year. Jno. Grigor, the eminent Scotch arboriculturist recommends this as the best way to graft all varieties of weeping willows.

Defect in Cherry Trees.

I LIKE to inquire if you or one of the readers of the HORTICULTURIST can give me the reasons or a remedy for a defect in the bearing capacity of a Gov. Wood cherry tree of mine. This tree was planted in the year 1854, and is now one of the finest looking I ever saw; it is really an ornament on my ground, and admired by every one who sees it. But where is the fruit? The tree blooms every spring most profusely, and sets its fruit well, but at the time the cherries attain about the size of a pea, the most of them instead of becoming round, grow in an elongated shape, and after awhile turn yellow and drop off, and on this account I never have gathered more than from one to two gallons of cherries from this tree in one season. Can any body tell me what is the matter? There is another malady which attacks our Prior's Red apple trees, which baffles all ingenuity to overcome it. Every June, for the last ten or twelve years, the leaves of the trees of this variety, young and old, are attacked by a sort of fungus, which appears first in the shape of little yellow spots, sprinkled over the whole tree; they grow larger, and become of a darker color, until the tree looks as if it had been scorched; consequently no further growth and no apples. Twenty years ago this variety was as healthy as any other, and it is indeed hard, considering the excellence of this fruit, to give it up as incurable. I am informed that this malady prevails over the whole State of Kentucky, more or less.

HENDERSON, KY. JAC. REUTLINGER.

Reply.—With regard to your apple trees, we see no other way but to re-graft with some other variety. The fungus may be similar to that attacking the White Doyenne, and other varieties of pear, from which there may be no way of escape. Re-grafting may prove a decided help. The varieties to choose are those that have proved most healthy in your neighborhood. As to the cherry tree we can give no light or advice. Have you observed any insects either in the tree, or worms around the roots? In other respects your statement would seem to imply a healthy condition of the tree. Its leaves are not affected, and the ill maturing of the fruit must be from some other source than the blossoms or leaves.

Flowering Shrubs.

I HAVE been building a country residence, and want to ornament my grounds. Can you give me a list of ornamental shrubs, roses, select herbaceous flowering plants and bulbs, that will prove hardy without protection here in latitude 45°, and also those that will stand with slight protection? What varieties of known hardiness have been introduced in the last few years? Please give a list of the best. J. T. GRIMES.

Reply.—Nothing adds so much to the beauty and comfort of a rural home as the use of an abundance of flowering shrubs and evergreens. We give a short list of those most easily grown.

Dwarf Double Flowering Almond is a low-growing shrub, hardly three feet high, blooming profusely in April, when its slender twigs are covered completely with delicate beautifully formed flowers, like miniature roses, and of white or rose colors. It is perfectly hardy, and is grown in all parts of the country. It should be planted close to the garden or lawn walks, and the large shrubs should stand more in the background.

The *Deutzia* is another shrub of little larger size, producing an abundance of white flowers, and growing in a fine, regular manner. There are several varieties. The *D. scabra* is a strong grower, and reaches the height of four to five feet, with orange-colored blossoms. The *D. gracilis* is a dwarf grower, hardly two feet in height.

The *Japan Quince* has become quite common in nearly all village gardens. In the early spring months, just as the leaves begin their growth, the crimson blossoms appear in the most wonderful profusion, invariably exciting the attention of the passers-by. It is a handsome shrub while young, growing to the height of three feet, and always beautiful in bloom. It needs severe trimming, as it will become straggling and irregular at the base of the stem and trunk, and lose all beauty of form. If well pruned, it is one of the most showy shrubs for the village garden.

The *Spiræa*, with its numerous varieties, is another interesting class of shrubs. They grow usually two to four feet, and the stems shoot out from the crown directly, and reach to great length, covered with beautiful flowers and foliage. The finest variety is the *Spiræa prunifolia flore pleno*, the flowers of which are pure white. The *Spiræa Donglassi* has pink or rosy flowers.

The *Snow Ball*, or *Viburnum*, is a shrub of largest size, reaching often eight to ten feet; very regular in its growth, and covered in May and June with flowers of largest size, of pure white color, exactly the form of a good sized snowball. Its foliage is large and broad, deep green in summer, but changing in autumn to a bright red, adds greatly to its handsome appearance.

The *Weigela* is another shrub, most beautiful in flower, and of easy culture. It grows in a round regular form, bearing upon its shoots and side branches large clusters of rose-colored flowers, which, added to its slightly drooping habit, makes it appear very graceful. The finest variety is the *Rose*, but the *Amabilis* has a large foliage, with a tendency to flower a second time in the autumn.

These shrubs will be found sufficient for an amateur just beginning gardening. There are other shrubs, which he will in time begin to love and appreciate, but which are not at first as attractive as those more easily grown and a little more showy. To every garden, besides these deciduous shrubs, there should be added a few *Norway Spruce*, either as screens, or to help out the beauty of the place in winter, when the leaves have all fallen, and nothing green save this is to be seen. The commercial value of shrubs in home adornment is very great; for we have no doubt many a place has sold more quickly, and for $500 or $1,000 more, because it had an abundance of beautiful shrubs and trees around. So we say no one loses by planting everything beautiful and tasteful.

Propagation of Raspberries.

WOULD it not be a practical suggestion that propagators of raspberries; in describing varieties new or old, give a statement concerning the method of propagating each, whether by *suckers* or by *tips*? It is very rarely done, and it seems to me to be an item of importance to the buyer, as we all know what an intolerable nuisance in the garden is the blackberry, and as we are *compelled* to put up with *that*, let us avoid root propagating raspberries. I am now speaking for those who, like myself, desire to test several sorts, in a small way, but who are not raising fruit as a business. Of course, parties cultivating for profit can afford to spare the necessary time and expense for keeping down the sprouts. HENRY NEWMAN.

OSSAWATTOMIE, KAN.

Reply.—Black Cap raspberries are propagated usually from the tips, but Red and Purple Cane raspberries are propagated from roots. We see no way to prevent the self-propagation of the latter class, than by persistent cultivation and eradication. The Clark raspberry is the worst to sucker of anything we have ever seen, and when it once gets hold in a garden, it can hardly be stopped.

Small Fruits.

EDITOR HORTICULTURIST: I was very much interested in an essay (in the February number), read before the Farmers' Club of New Brunswick, N. J. We think the writer is high in his estimate on the cost of growing small fruits in New Jersey. We are aware of the fact that they have to manure or fertilize their lands more than we do here in the West, but with all that, his figures are to

us fancy. This is certainly enough to disgust small fruit growers with the business, while the berry crops bring such prices as they have the past two years. Better grow corn and grass, or pigs and poultry, if growing small fruits cost $150 and $200 per acre for strawberries, and $80 for blackberries and raspberries. We do not wonder at the wail going out from Vineland, that fruit farmers are disgusted with the business, and selling out at a great sacrifice. I have made small fruits a speciality the past four years; have raised more than one hundred bushels of Wilson's Albany strawberry per acre, and raspberries about seventy-five, the cultivation of which cost me less than $35 per acre. The past spring I planted a new field of strawberries (three acres), that did not cost me over $25 per acre to grow, including mulching with wheat straw in November. I never saw better vines, and I am confident I will have one hundred bushels per acre, or as many as my Jersey friend on his patch that has cost $200 per acre. If our disgusted Jersey friends will come West, even to Missouri, twenty-seven miles south of St. Louis, on the Iron Mountain railroad, we will gladly instruct them in the art of growing strawberries at figures ranging from $25 to $35 per acre.

We must grow our berry crops with the least possible expense. These fancy figures will not do for profit. I believe in thorough culture, but when that is done, it is enough. I worked my vines the past season about every ten days, with cultivator and hoe, until 20th September. The second year I cultivate two to three times after the crop is gathered. I will say to our eastern friends, that this part of Missouri, is the finest fruit country in the West. Peaches scarcely ever fail on the high lands (the lands are near all high), and all the small fruits are a certainty. At this place we have facilities for shipping either by railroad or the river. Our river landing is about a mile, while the nearest station on the railroad is a mile and a half.

The flavor of our grapes is equal to any on the continent. Mr. Husman, author of *Grapes and Wine*, says we can beat California. Then this is a romantic country, abounding in ranges of hills, with deep, rich vallies. Many points we can see ten to twenty miles south and west, and a mile or more back of the Mississippi river, we have a magnificent view far over into Illinois. I will close this with a request that persons seeking situations to raise fruit, to come and see.

PEVELY, JEFFERSON CO., MO. B. FRANK. SMITH.

Horticultural Notes.

Treatment of the Calla Lily.

IT is an aquatic plant, and requires a large amount of water to keep it thriving. I have the nicest one I ever saw, and it is admired by every one who sees it. I keep the earth perfectly saturated with water, putting it on *warm* every day, and occasionally a little liquid manure. I shower it frequently. It blossomed in October, and again in January. It has put out some fifteen new leaves, the last of which are fourteen inches long, on a stalk two feet and four inches high. Care must be taken not to break the stalks, else the leaves will die, and the root also be injured.

No plants will *thrive* in an ordinary cellar. The *kitchen*, where the air is moist with the steam arising from boiling water, is the *best* place for house plants. If well "hardened off" in the fall, they will bear a temperature of 34° without injury. Any room containing house plants should have water kept upon the stove; and *should not* be kept *warm* during the night; *hot, dry* atmosphere kills them. Let them have the sunniest place in the house.—Mrs. L. S., *Nunda, in Rural New Yorker.*

New Coleus.

A CORRESPONDENT of the *Rural New Yorker*, who visited the greenhouses of Jno. Saul, Washington, D. C., is pleased with the new *Coleus, Her Majesty*. That this is the best one of the new collection, we are not prepared to say; for so many were beautiful, that when we decided upon one, the other presented a claim over which we could not rule. The claim of "Her Majesty" is its free habit, apparent robust constitution, and very broad leaves of deep bronzy crimson red in centre, belonging to *Verschaffeltii*, with a distinct narrow golden edge.

"Queen Victoria" is another, with a vigorous habit that will fit it well for out-door bedding, and many would, perhaps, consider it superior to "Her Majesty." It has bright crimson leaves, with a narrow margin of yellow-veined, or marbled with crimson.

"Princess Royal" is very bright in the color of its bronzy crimson leaves, and especially underneath, but its edge marking is less distinct.

"Baroness Rothschild," is considered by Mr. Saul, as "exquisitely beautiful," its leaves being of bright bronzy crimson, without stains or blotches, having a bright golden margin marked with light carmine.

"Beauty of St. John's Wood," is a compact grower, of a rich crimson color, margined with golden yellow. It is quite distinct, and very handsome. But it is hardly necessary to write of any more varieties.

It perhaps will not be saying too much for the Coleus, if we remark that for ornamental purposes, rapid growth, early culture and great beauty, whether in the open bed or border of the garden—in

the green-house, or as plants for table decoration, they are unsurpassed. As pot plants for table decoration, when placed under strong gas light, they are magnificent in their beauty.

Louise Bonne de Jersey Pear.

E. WARE SYLVESTER communicates to the *Country Gentleman* notes of his success with this pear.

As a Market Pear.—The Louise Bonne sells well in market, and I append statements of the yield and gross proceeds of four rows in my orchard for the years 1868 and 1869. These rows are a part of an orchard of twenty varieties, so that they had no special advantage of sun and space, as do those trees which stand alone in the open ground. The orchard is one of those ridges so common in this region, and has an eastern aspect. These trees occupy four short rows ten in a row, making forty trees in all in the orchard. They were planted in 1858, and were ten years old at the time of the crop, which was in the autumn of 1868. The trees are on quince stock, and are trained to half standards, and are about ten feet high. The trees had received good cultivation, but have never been highly manured, as the soil, which is a gravelly loam, is sufficiently strong to produce healthy trees with moderate fertilizing. They were planted ten feet each way (I should now plant twelve or fourteen), and hence do not occupy but little ground; allowing for five feet of ground outside the rows, the amount of land is about one-eighth of an acre. The forty trees produced in 1868, forty bushels of selected pears, which sold in Washington Market, New York, for six dollars per bushel, average price, or $240 for the one crop, being at the rate of *nineteen hundred and twenty dollars per acre.* These were not selected rows, but were all together, and all the Louise Bonne de Jersey trees there were in the orchard. In 1869 the same trees produced fourteen half barrels of No. 1, and one half barrel of No. 2. The pears sold in the same market at an average of six dollars per half barrel, and the No. 2 at two dollars and fifty cents, making $86.50, or at the rate of $690 per acre.

Quality.—Mr. Barry in the *Fruit Garden*, says, "Louise Bonne de Jersey, one of the finest of all pears, large, beautlful and delicious; it succeeds well both on pear and quince, but on the latter especially, it is all that could be desired." Mr. Downing says, in the *Fruits and Fruit Trees of America*,—"succeeds admirably on the quince, forming a fine pyramid—not of the first quality, but profitable. Tree vigorous, upright, very productive, fruit of better quality on the quince than on the pear." While some amateurs will differ a little as to the precise position in the flavor scale, the multitude, who are always pleased with a juicy, slightly acid pear, which has "character," will give the Louise Bonne a very high, if not the first position. For canning, this variety retains its flavor and firmness in a remarkable degree, and though some may prefer the musky taste of the Bartlett, yet the multitude I have no doubt will award to the Louise Bonne, the position of A No. 1, for preserving for winter use.

Distances for Evergreen Belts.

THE ground for the reception of evergreen trees, may be the same as is usual for corn. Though with them, as with farm crops, the deeper the soil is stirred the better. The trees should be planted as deep as they stood in the nursery. The cultivation consists in repeatedly stirring the soil to the end of the season.

If we rightly understand the term belt, it applies to single rows of trees, or to plantations of a greater breadth. If single rows are to be employed, then at the end of ten years, and afterwards, trees standing ten feet apart will be near enough If the breadth of the belt is to be widened to several trees instead of one line, then fifteen feet will not be too great a distance between the trees. At these distances they will longer retain the verdure of their lower branches than they could at nearer distances. We have a belt of a single row of Norway spruces, six feet apart, eleven years planted, which this early would be better with every alternate tree out. This belt already forms a dense screen to the height of several feet, but the lower branches, pointing in the direction of the row, are fast losing their foliage for want of room. A single look at a spruce twelve or fifteen feet high, will best indicate what its future want will be. So of other evergreen trees; to secure lasting belts, to be both useful and ornamental, room must be given in which the trees may grow.

In planting, especially where the surface would favor, we would avoid straight lines by passing around and near to the heads of ravines, partly over and around elevations. It should not be forgotten that by crossing over irregularities of surface, it is possible to vary the sky line of our trees so that as fine an effect may be produced in this way as could be expected by irregular planting.

However desirable it may be that our timber belts should present an irregular outline, yet in diverging from straight lines we must not lose sight of the future convenience in the cultivation of farm crops.—*Prairie Farmer.*

Removal.

OUR office having been removed to 5 Beekman street, subscribers will please address accordingly. The new offices are on the first floor (Rooms 5 and 6), very convenient of access.

Delivery of Premiums.

WE shall continue sending off premiums of Roses, Lilies, &c., until the middle of June. Subscribers will therefore be patient, and we will send as soon as we can get plants large enough and good enough to give entire satisfaction.